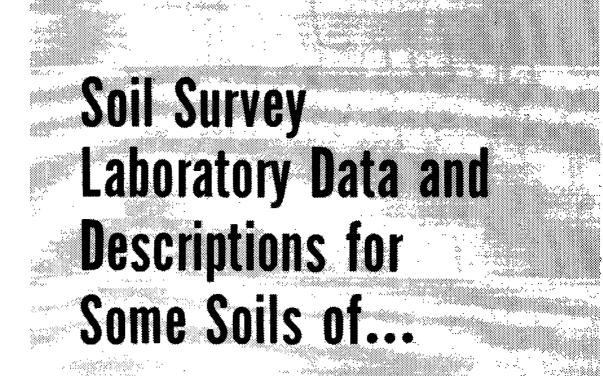
Soil Survey Investigations Report No. 13



...MISSISSIPPI

SOIL CONSERVATION SERVICE • U.S. DEPARTMENT OF AGRICULTURE In cooperation with MISSISSIPPI AGRICULTURAL EXPERIMENT STATION

Soil Survey Laboratory Data and Descriptions for Some Soils of...

...MISSISSIPPI

MAY 1967

SOIL CONSERVATION SERVICE • U.S. DEPARTMENT OF AGRICULTURE In cooperation with MISSISSIPPI AGRICULTURAL EXPERIMENT STATION

1. SAMPLE COLLECTION AND PREPARATION 5A. Cation-exchange capacity (cont.) 2. NaOAc, pH 8.2 6. CHEMICAL ANALYSES (cont.) J. Hicarbonate A. Field sampling a. Centrifuge method 3. Sum of cations 1. Site selection 1. Saturation extract a. Acid titration 2. Soil sampling a. Acidity by RaCl₂-TEA, pH 8.2; bases by NH₄OAc, pH 7.0 4. KOAc, pH 7.0 a. Stony soils K. Chloride B. Laboratory preparation 1. Standard (airdry) 1. Saturation extract a. Mohr titration b. Potentiometric titration s. Square-hole 2-mm sieve b. Round-hole 2-mm sieve 5. BaCl2, pH 8.2 a. Barium by flame photometry L. Sulfate 1. Saturation extract Field moist B. Extractable bases a. Gravimetric, BaSQ4 3. Carbonate-containing material 1. NHAGAc extraction 2. NH4OAc extraction 4. Carbonate-indurated material 2. CONVENTIONS a. Uncorrected a. Gravimetric, BaSO4 b. Corrected (exchangeable) M. Nitrate A. Size-fraction base for reporting 2. KC1-TEA extraction, pH 8.2 1. Saturation extract
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a. EDTA titration quantitative procedure used D. Sodium saturation 2. NH4OAc extraction (exchangeable Na pct.) or less than reportable a. EDTA-alcohol separation 1. NaOAc, pH 8.2 Amount 2. MH40Ac, pH 7.0 E. Sodium adsorption ratio 6. CHEMICAL ANALYSES tr(s): trace, detectable only by b. Oxalate-permanganate I qualitative procedure more c. Oxelate-permanganate II Fe, Al, and Mn removed sensitive than quantitative d. Oxalate-cerate procedure used A. Organic carbon analysis run but none 1. Acid-dichromate digestion 3. NH4C1-EtOH extraction a. EDTA titration 4. KCl-TEA extraction detected a. FeSO4 titration -(s): none detected by sensitive b. CO₂ evolution, gravimetric
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b. Phosphate titration none present
3. PARTICLE-SIZE ANALYSES a. Weight loss Nitrogen A. <2-mm fraction (pipet method) l. Kjeldahl digestion c. Gravimetric, Mg 2P2O7 1. Airdry samples
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PREFACE

This publication is one in a new U.S. Department of Agriculture series established to preserve and make available technical information resulting from soil survey investigations. These investigations have been going on for about two decades. Data from them have been distributed in unpublished form to those immediately concerned. Some of the data and descriptions have appeared in technical journals, in regional bulletins, in USDA technical bulletins, and in the text of published soil surveys. But most were not available to all who might use them.

We intend to publish in this series all data from the soil survey laboratories that form reasonably complete characterizations of soils. Already-assembled data and descriptions will be published just as rapidly as they can be prepared for printing. Fragmentary data collected as reference points for specific soil surveys will not be included.

While these data were being assembled, there were many changes in laboratory methods. Some were improved and some new ones were devised. Consequently, laboratory data for different soils cannot always be directly compared without allowance for the method.

The method used is indicated by symbol in the column headings of the data table. These symbols are identified in the code sheet on the opposite page. Each method is described in the first number of this series, "Soil Survey Laboratory Methods and Procedures for Collecting Soil Samples." SSIR No. 1.

Ways of describing soils have also changed. Soil descriptions have become explicit on more and more features. The systems for designating horizons and for classifying soils have been changed.

The soil descriptions published here were prepared as working documents to meet a specific need of a soil survey at the time the soil samples were collected. The soil scientists who wrote them had no idea they would be published. Editing has been limited for the most part to that necessary for conformance to the "Soil Survey Manual." Field textural estimates have been retained, even though some are at variance with the laboratory data, because the field estimates themselves are important data.

There were several reasons for sampling these soils. Some were sampled to study soil genesis, some to facilitate classification, and some to obtain data to permit more useful interpretations. Those sampled for genesis or classification studies do not always fit neatly into our present concepts of soil series. Partly because of these studies, our concepts of some soil series have been modified. As a consequence, the soil series name assigned a soil at the time of sampling is not always the name that would be assigned today. Soil series names in this publication follow 1965 series definitions.

Soil Survey Soil Conservation Service

MISSISSIPPI

Soil Series	County	Soil Survey No.	Page	Soil Series	County	Soil Survey No.	Page
Adler	Leflore	S56Miss-42-1	3	Lynchburg	Lamar	S63M1ss=37_3	93
Alligator	Leflore	S56M1ss-42-3	5		Lamar	S63Miss-37 - 5	95
#Amagon	Bolivar	851Miss-6-2	7	Mayhew	Noxubee	858Miss-52-1	97
Amite	Pearl River	S56M188-55-1	.9		Noxubee	858Miss-52 - 4	99
	Pearl River	S56Miss-55-2	11	Memphis	Hinds	S60Miss-25-1	101
	Monroe	S61Miss-48-1	13	_	Hinds	860Miss-25-2	103
	Monroe	S61Miss=48-2	15		Warren	856Miss-75 - 1	105
*Askew	Bolivar	S51Miss-6-1	17		Warren	S56Miss-75 - 2	107
	Quitman	D45M1-012	19		Warren	S59Miss-75-1	109
	Tunica	D45M1-009	21		Warren	\$59Miss=75-2	111
	Tunica	D45Mi-010	- 23	Myatt	Lamar	S63Miss-37-2	113
Atwood	Pontotoc	S61Miss-58-1	25		Lamar	863Miss-37-4	115
	Pontotoc	S61Miss-58-2	. 27	0ra	Covington	S56Miss-16-1	117
Bosket	Tallahatchie	D44M1-007	29		Covington	856Miss-16-2	119
*Brookhaven	Lincoln	S59Miss-43-3	31	Phe ba	Forrest	563Miss-18-2	121
	Lincoln	S59Miss-43-4	33		Forrest	863Miss-18-3	123
Bude	Tippah	S61Miss-70-3	35	Prentiss	Clarke	S61Miss-12-1	125
	Tippah	S61Miss-70-4	37	Providence	Lincoln	859Miss-43-1	127
Calloway	DeSoto	S52Miss-17-1	39		Lincoln	S59Miss=43-2	129
•	Panola	S59Miss-54-1	41	Rains	Forrest	S63Miss-18-1	131
	Panola	S59Miss-54-2	43		Lamar	S63Miss-37-1	133
Dubbs	Quitman	D44M1-006	45	Ruston	Jackson	S55Miss-30-3	135
	Quitman	D44M1-008	47		Jackson	\$55Miss-30-4	137
	Tunica	D44M1-001	49	Savannah	Clarke	S61Miss-12-2	139
	Tunica	D44M1-003	51		Forrest	556Miss - 18-1	141
	Tunica	D44M1-004	53		Forrest	556Miss-18-2	143
	Tunica	D44M1-005	55		Monroe	S61Miss-48-3	145
Dundee	Tallahatchie	D45M1-013	57	•	Monroe	S61Miss-48-4	147
	Tate	D45Mi-015	59	Sharkey	Tunica	D45M1-017	149
	Tunica	D45M1-011	61		Tunica	D45M1-018	151
Eustis	Jackson	S55M1ss-30-1	63	Stough	Clarke	861Miss-12-3	153
Eutaw	Jasper	S58Miss-31-1	65		Clarke	S61Miss-12-4	155
	Monroe	S58Miss-48-1	67	Sumter	Clay	S58Miss-13-1	157
	Monroe	S58Miss-48-2	69		Monroe	S58Miss-48-6	159
	Newton	S58Miss-51-1	71		Newton	858M1ss-51-2	161
Falkner	Tippah	S61Miss-70-1	73		Newton	S58Miss-51-3	163
	Tippah	S61Miss-70-2	75	Vaiden	Lowndes	S58Miss-44-1	165
Grenada	Hinds	S60Miss-25-3	77		Lovndes	S58Miss-44-2	167
Lakeland	Jackson	855Miss-30 - 2	79		Monroe	S58Miss-48-3	169
Leaf	Jackson	S55Mies-30-7	81		Monroe	858Miss-48-4	171
	Jackson	855Miss-30 - 8	83		Newton	855Miss-51-1	173
Loring	DeSoto	S52Miss-17-2	85	•	Newton	S55M1ss-51-2	175
_	Hinds	S56Miss-25-1	87	Vicksburg	Leflore	556Miss-42-2	177
	Hinds	856M188-25-2	89	Wilcox	Noxubee	858Miss-52-2	179
	Hinds	S60M1ss-25-4	91		Noxubee	S58Miss-52-3	181

^{*}Soil series names preceded by an asterisk are names of tentative series.

MISSISSIPPI

County	Soil Series	Soil Survey No.	Page	County	Soil Series	Soil Survey No.	<u>Page</u>
Bolivar	*Amagon	851Miss-6-2	7.	Monroe	Eutaw	S58Miss-48-1	67
	*Askew	851Miss-6 - 1	17		Eutaw	S58Miss-48-2	69
Clarke	Prentiss	S61Miss-12-1	125		Savannah	S61Miss-48-3	145
	Savannah	561Miss-12-2	139		Savannah	S61Miss-48-4	147
	Stough	S61Miss-12-3	153		Sumter	858Miss-48-6	159
	Stough	S61Miss-12-4	155		Vaiden	858Miss-48-3	169
Clay	Sumter	S58Miss-13-1	157		Vaiden	\$58Miss-48-4	171
Covington	Ora	S56Miss-16-1	117	Newton	Eutaw	S58Miss-51-1	71
	Ora	856Miss-16-2	119		Sumter	858Miss-51-2	161
DeSoto	Calloway	852Miss-17-1	39 85		Sumter	S58Miss-51-3	163
	Loring	S52Miss-17-2			Vaiden	S55Miss-51-1	173
Forrest	Pheba	S63Miss-18-2	121		Vaiden	S55Miss-51-2	175
	Pheba	S63Miss-18-3	123	Noxubee	Mayhew	S58Miss-52-1	97
	Rains	S63Miss-18-1	131		Mayhew	S58Miss-52-4	99
	Savannah	856Miss-18-1	141		Wilcox	S58Miss-52-2	179
*** *	Savannah	856Miss-18-2	143		Wilcox	S58M185-52-3	181
Hinds	Grenada	S60Miss-25-3	77	Panola	Calloway	S59Miss-54-1	41
	Loring	856Miss-25-1	87		Calloway	S59Miss-54-2	43
	Loring	S56Miss-25-2 S60Miss-25-4	89	Pearl River	Amite	S56Miss-55-1	. 9
	Loring	560Miss~25-1	91 101		Amite	S56Miss-55-2	11
	Memphis	S60Miss=25=2	101	Pontotoc	Atwood	561Miss-58-1	25
7	Memphis	855Miss-30-1	63	i	Atwood	S61Miss-58-2	27
Jackson	Eustis Lakeland	855M188-30-2	79	Quitman	*Askew	D45M1-012	19
	Leaf	855Miss-30-7	81		Dubbs	D44Mi-006	45
	Leaf	S55Miss-30-8	83		Dubbs	D44Mi-008	147
	Ruston	855Miss=30=3	135	Tallahatchie	Bosket	D44Mi-007	29
	Ruston	S55M1ss-30-4	137	m-+-	Dundee	D45Mi-013	57
Jasper	Eutav	858Miss-31-1	65	Tate	Dundee	D45M1-015 S61M1ss-70-3	59 35
Lamar	Lynchburg	S63M1ss-37-3	93	Tippah	Bude Bude	S61Miss-70-4	37 37
Domest	Lynchburg	863M1ss-37-5	95 95		Bude Falkner	S61Miss-70-4	31 73
	Myatt	S63Miss-37-2	113		Falkner Falkner	S61Miss-70-2	75
	Myatt	S63Miss-37-4	115	Tunica	*Askew	D45Mi-009	21
	Rains	563Miss-37-1	133	Iunica	*Askew	D45M1-009	23
Leflore	Adler	S56Miss-42-1	- 3		Dubbs	D45M1-010 D44M1-001	49
	Alligator	S56Miss-42-3	5		Dubbs	D44M1-001	51
	Vicksburg	S56Miss-42-2	177		Dubbs	D44M1-004	53
Lincoln	*Brookhaven	S59Miss-43-3	31		Dubbs	D44M1-005	55
	*Brookhaven	859Miss-43-4	33		Dundee	D45Mi-011	61
	Providence	S59Miss-43-1	127		Sharkey	D45M1-017	149
	Providence	859Miss-43-2	129		Sharkey	D45Mi-018	151
Lowndes	Vaiden	858Miss-44-1	165	Warren	Memphis	S56Miss-75-1	105
	Vaiden	S58Miss-44-2	167		Memphis	S56Miss-75-2	107
Monroe	Amite	S61Miss-48-1	13		Memphis	S59Miss-75-1	109
	Amite	S61Miss-48-2	15		Memphis	S59Miss-75-2	111

^{*}Soil series names preceded by an asterisk are names of tentative series.

SOIL Adler silt losm

SOIL Nos. 856-Miss-42-1 LOCATION Leftore County, Mississippi

SOIL SURVEY LABORATORY Beltsville, Maryland LAB. Nos. 56579 - 56582

Total Tota	382 Cm 4C1 WRD	Co 2A2 > 2 Poi. tr. tr.		19- ct. of
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Extractable bases 581a		<u> </u>		6.
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6-30 3.4 2.3 0.3 0.1 2.0 8.1			75	
30-54 5.4 3.7 0.4 0.2 1.6 11.4 54+ 7.7 5.2 0.5 0.4 5.1 18.9			73	
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NAME BEG-MATTERFICIE. NO. 1964

Soil Type: Adler silt loam

Soil No.: S56Miss-42-1 Location: Leflore County, Mississippi, NE 1/4 of SW 1/4, Sec. 8, T 17N, R 1E, 1/2 mile east of Highway No. 49E and 3/4 mile north of Abiacha Creek Diversion Canal. Photo AVI-2F-50 Collected by and date: Welter E. Keenan and W. M. Morris, 4/17/56

Horizon and Beltsville Lab. No.

Ap 56579

O to 6 inches. Yellowish brown (10YR 5/4), very pale brown (10YR 7/3), dry; silt losm with weak fine granular structure; very friable; medium acid; boundary abrupt, smooth. Many fine roots are present in this horizon.

56580

6 to 30 inches. Yellowish brown (10YR 5/4), pale yellow (2.5Y 7/4), dry; very friable silt loam; with distinct common medium gray to brown mottles; massive structure; slightly acid; boundary abrupt, smooth. Many fine roots have penetrated to the lower depths of this horizon, and there are many decaying roots, parts of tree limbs and other decaying plant material present.

56581

30 to 54 inches. Yellowish brown (10YR 5/4), pale yellow (2.5Y 7/4), dry; slightly firm silt losm and brown mottles; massive structure; neutral reaction; boundary gradual, wavy. A few fine roots have penetrated the upper part of the horizon, and there is much decaying plant material present.

56582

54+ inches. Brown (10YR 5/3) and grayish brown (10YR 5/2), white (N 8/) and pale yellow (2.5Y 7/4), dry; firm silty clay loam, with many medium distinct brown mottles; massive structure; slightly acid. The water table was slightly above the 54 inch level and no observation of this horizon in place could be made. The sample from this horizon was collected with a post hole auger.

Notes: Colors refer to moist soil unless otherwise stated.

\$C\$-421

	10-64 (Rev. 9-66							SOIL CONSERVATION SERVI	Æ
	SOIL Alli	gator c	lay	SOIL N	los. <u>856-14188-42-3</u>	LOCATION LOCALOR	<u>e County, Missis</u>	sippi	_
			RY <u>Beltsville, Maryla</u>			_ LAB. Nos 56586 -			
	SOIL SURVEY	LABUKATUI	(1		, · · · · · · · · · · · · · · · · ·			••	_
			181b		Size class and particle	diameter (mm) 3A1		2 C t 951	_
			Total T	 	Send	Sitt		2 Coarse fragments 3Bt 2A2	-
	Depth (in)	Horizon	Send Sitt Clay	Very Coerse Medi 02) (3-1) (1-0.5) (0.5-	ism Fine Very fine 0.25140.25-0.1) (0.1-0.05) 0.	int. 333 Int. 33 95-0 02 (0.02- (0.2-0.02)	(2-0.1) Crr	== 2 2 - 19 19 - 7	5
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Soil Type: Alligator clay
Soil No.: S56Miss-42-3
Location: Leflore County, Mississippi, NE 1/4 of Sec. 11, T 20N, R 2E, 1 1/8 mile S. of Little Tippo

Bayou and 1 1/8 mile SW of Goose Lake; 100 feet W. of field road. Photo AVI-2F-19

Collected by: Walter E. Keenan, 6/29/56

Horizon and Beltsville Lab. No.

Ap 56586

0 to 4 inches. Dark grayish brown (10YR 4/2) firm clay; moderate fine granular structure;

strongly acid; boundary abrupt, smooth.

4 to 10 inches. Gray (5Y 5/1) or (10YR 6/1) firm clay, very hard when dry and very plastic when wet; mottles are many, medium, distinct and prominent; weak fine subangular Clg 56587 blocky structure; numerous fine pores; strongly acid; a few cores of dark grayish brown

clay 5 to 15 mm in diameter extend down from Ap; boundary gradual, smooth. A few roots

have penetrated to the lower part of this horizon.

C2g 56588 10 to 27 inches. Gray (5Y 5/1) or (10YR 5/1), firm clay, very hard when dry and very plastic when wet; mottles are many, medium, distinct and prominent; weak fine subangular

blocky structure; numerous fine pores; strongly acid; boundary gradual, smooth. Only a

very few fine roots have penetrated this horizon.

¢3g 56589 27 to 40 inches. Gray (10YR 5/1), firm clay, very hard when dry and very plastic when

wet; mottles are many, medium, distinct and prominent; massive structure; fine pores;

strongly acid; boundary clear, smooth.

40+ inches. Dark gray (10YR 4/1) or (5Y 4/1), firm clay, very hard when dry and very 56590

plastic when wet; mottles are common, fine distinct; massive structure; fine pores;

slightly acid.

Notes: Colors refer to moist soil unless otherwise stated.

SOIL * Amagon silt loam

Solt Not. 851Miss-6-2 LOCATION Boliver County, Mississippi

SOIL SURVEY LABORATORY Beltsville, Maryland

____ LAB. Nos. <u>51806 - 518</u>16

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			Total					Send		Si				1	382		rse fragme	nte 32
	I	Sand	Silt	Clay	Vary	Çoarse	Medium	Fine	Very fine		Int. III	int. 🎞				2A2		1
Depth (in.)	Harizon				COSTS			(0.25-0.1)							Cm	>= 2	2 ~ 19	19-
(ia.)		(2-4.03)	(0.002)	(< 0.002	(2-1)	(1-0.5)	(V.8-U.20)	146-52-0.1)	(0.1-0.00)	0.05-0.02	0.002)	(0.2-0.02)	(2-0.1)		Um			t. of
		<u> </u>					t, of <= 2					_		,		Pct.	_=	76mm
0-3	Al .		69.9	11.8	-	0.1	0.2	3.4	14.6		24.1	63.4 58.9		1		-		
3-6	A2	1	70.4	14.3	0.2	0.7	0.6	1.3	12.5		24.8	58.9				-		
<u>6-16</u>	A3	_	62.8	15.5	0.4	0.8	0.5	1.0	19,0	L	21.3	61.1		<u> </u>	<u> </u>			
16-20	B21tg	1	55.6	19.4	0.3	0.8	0.4	0.8	22.7		17.0	61.9				-		
20-28	B21tg	1	58.8	19.8	0.1	0.4	0.3	0.7	19.9		15.0	64.1				-		
<u> 28-34</u>	B22t	<u> </u>	72.3	17.4	0.1	0.6	0.4	0.6	8.6		25.6	55.7				_		
34-38	B22t	1	72.5	16.2	0,1	0.7	0.4	0.6	9.5		24.1	58.3				-		
38-45	B3lg	1	67.4	26.2	0.4	0.9	0.4	0.6	4.1		36.1	35.7 48.5			l '	-		
45-53	B32g		69.9	22.2	0.3	0.6	0.4	0,6	6,0		27.8	48.5						
53-72	IICLg	1	49.1	48.9	-	0.1	0.2	0.8	0.9		34.4	16.1				-		
72+	IIC2g	1	69.5	24.7	-	0.3	0.4	0.9	4.2		33.4	40.9				-		
	+	+ -	_	_	<u> </u>	 		Dutk deneit				later conte		₩	-	_		
	6Ala						<u> </u>	$\overline{}$		4D1			· · · · · · · · · · · · · · · · · · ·	1	4¢1	_	pH I	_
Depth	Organic	Mitrogen	C/N		Carbonata			4Ale	4A1h			481c	482				8Clc	8C1
(ln.)	carbon				as CaCO _S	as fo		35 ber	Oven dry	COLE		34 ber	15 ber		WRD		(1:1)	(1:1
								••										
	Pct.	Pct.			Pct.	Pct.	g/cs	8/00	g/00		Pct.	Pat.	Pat.		in/in		KCI	H ₂ (
0-3	1.76	† · · · ·			T		 	<u> </u>		-			 -	1	1	t	1 -	5.0
3-6	0.67	1	l	I		1	٠,	,		1			· ·	1	l	I	I	ś.:i
6-16	0.28																	5.1
16-20	0.19	†												†	1		•	5.
20-28	0.19									,								5.
28-34	0.18									l '								[6]
34-38	0.16							Ť		i .		Î	i	Î	i i		i i	5.
38-45	0.16																	163
45-53	0.16												1	l.				5. 5.
53-72	0.19							\Box										5.2
72+	0,14																	5.8
		C-tractal	de bases (D1.2			_	<u> </u>	8 6 1d				lution to ch	<u> </u>	8D3		Base 641	l watioo
				T .		6HLa	"	€C	9610					7	1			
Depth	6N24	602b	6P2a	8Q2a		6HLa. Ext.		ec I									503	501
Copth (ld.)	6N2d Ce			T .	Sum		SABe Sum	<u></u>	Ext.			CEC Sum	Ext.	15-bar water	Ca/Mg		5C3 Sem	501 NH ₄ 0
	1 '	602b	6P2a	8Q2a		Ext. acidity	5Aže	<u> </u>	Ext.			CEC	Ext.	15-bar			5C3 Sem cettoes	NH ₄ C
(in.)	Ca	602b Mg	6P2a Na	8Q2a K	Sum meg/100 g	Ext. acidity	SASe Sum gations		Ext.			CEC	Ext.	15-bar			5C3 Sum cetions Pct.	NH ₄ C
(in.) 0-3	Ca 5.1	802b Mg	6P2a Na	6Q2a K		Ext. scidity	5Alle Sum cations		Ext.		٠	CEC	Ext.	15-bar			503 Sum cettons Pct. 53	NH ₄ C
0-3 3-6	5.1 5.0	602b Mg	6P2a Na 0.2 0.2	6Q2a K		Ext. scidity	5Ale Sem celions		Ext.			CEC	Ext.	15-bar			503 Sum cettons Pct. 53	
0-3 3-6 6-16	5.1 5.0 4.4	802b Mg	6P2a Na 0.2 0.2 0.2	6Q2a K 0.3 0.2 0.1		Ext. scidity 6.3 5.6 5.6	5Ale Sem pations 13.5 12.5 12.5		Ext.	3		CEC	Ext.	15-bar			5C3 Sum cettons Pct. 53 55 51	NH ₄ C
0-3 3-6 6-16 16-20	5.1 5.0 4.4 5.0	1.6 1.5 1.9 2.7	6P2a Na 0.2 0.2 0.2 0.4	6Q2s K 0.3 0.2 0.1		6.3 5.6 5.6	5Ale 3em celions 13.5 12.5 12.5 12.2	EU	Ext.			CEC	Ext.	15-bar			503 Sem cettons Pet. 53 55 51 58	NH ₄ C
0-3 3-6 6-16 16-20 20-28	5.1 5.0 5.4 5.0 6.2	1.6 1.5 1.9 2.7 3.4	0.2 0.2 0.2 0.4 0.4	6Q2a K 0.3 0.2 0.1 0.2 0.2		Ext. scidity 6.3 5.6 5.6 5.9 6.6	5Ale Sum pations 13.5 12.5 12.2 14.2 16.8		Ext.			CEC	Ext.	15-bar			503 Sum cuttons Pct. 53 55 54 58 61	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-34	5.1 5.0 1.4 5.0 6.2 6.4	1.6 1.5 1.9 2.7 3.4 3.7	6P2a Na 0.2 0.2 0.2 0.4 0.4	802a K 0.3 0.2 0.1 0.2 0.2 0.2		Ext. acidity 6.3 5.6 5.6 5.9 6.6 6.5	13.5 12.5 12.5 12.2 14.2 16.8 17.3	l .	Ext.		-	CEC	Ext.	15-bar			503 Sum cuttons Pct. 53 55 51 58 61	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-34 34-38	5.1 5.0 5.4 5.0 6.2 6.4 6.0	1.6 1.5 1.9 2.7 3.4 3.7	6P2a Na 0,2 0,2 0,2 0,4 0,4 0,5	0.3 0.2 0.1 0.2 0.2 0.2		6.3 5.6 5.6 5.9 6.6 6.5	13.5 12.5 12.2 14.2 16.8 17.3		Ext.		-	CEC	Ext.	15-bar			503 Sum cettons Pct. 53 55 51 58 61 69	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-34 34-38 38-45	5.1 5.0 5.4 5.0 6.2 6.4 6.0 9.0	1.6 1.5 1.9 2.7 3.4 3.7	6F2a Na 0,2 0,2 0,2 0,4 0,4 0,5	602a K 0.3 0.2 0.1 0.2 0.2 0.2 0.2		6.3 5.6 5.6 5.9 6.6 6.5 6.0 8.1	5Abe Sum customs 12.5 12.5 12.2 14.2 16.8 17.3 16.3 23.4		Ext.		-	CEC	Ext.	15-bar			503 Sem cettors Pct. 53 55 54 58 61 69 63	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-31 34-38 38-45 45-53	5.1 5.0 1,4 5.0 6.2 6.4 6.0 9.0 8.4	1.6 1.5 1.9 2.7 3.4 3.7 3.6 5.2	6P2a Na 0.2 0.2 0.2 0.4 0.4 0.5 0.5 0.8	602a K 0.3 0.2 0.1 0.2 0.2 0.2 0.2 0.3 0.3		6.3 5.6 5.6 5.6 5.9 6.6 6.5 6.0 8.1 6.6	5Abe Sum cutions 12.5 12.5 12.2 14.2 16.8 17.3 16.3 23.4 21.0		Ext.			CEC	Ext.	15-bar			503 Sem cellors Pct. 53 55 54 58 61 62 63 65 69	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-34 34-38 38-45 45-53 53-72	5.1 5.0 4.4 5.0 6.2 6.4 6.0 9.0 8.4	1.6 1.5 1.9 2.7 3.7 3.6 5.2 4.9	0.2 0.2 0.2 0.2 0.4 0.5 0.5 0.8 1.3	0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3		6.3 5.6 5.6 5.6 6.5 6.5 6.0 8.1 6.6	13.5 12.5 12.5 12.2 14.2 16.3 17.3 16.3 23.4 21.0		Ext.			CEC	Ext.	15-bar			503 Sum cuttons Pct. 53 55 54 58 61 62 63 65 69 72	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-34 34-38	5.1 5.0 1,4 5.0 6.2 6.4 6.0 9.0 8.4	1.6 1.5 1.9 2.7 3.4 3.7 3.6 5.2	6P2a Na 0.2 0.2 0.2 0.4 0.4 0.5 0.5 0.8	602a K 0.3 0.2 0.1 0.2 0.2 0.2 0.2 0.3 0.3		6.3 5.6 5.6 5.6 5.9 6.6 6.5 6.0 8.1 6.6	5Abe Sum cutions 12.5 12.5 12.2 14.2 16.8 17.3 16.3 23.4 21.0		Ext.			CEC	Ext.	15-bar			503 Sem cellors Pct. 53 55 54 58 61 62 63 65 69	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-34 34-38 38-45 45-53 53-72	5.1 5.0 4.4 5.0 6.2 6.4 6.0 9.0 8.4	1.6 1.5 1.9 2.7 3.7 3.6 5.2 4.9	0.2 0.2 0.2 0.2 0.4 0.5 0.5 0.8 1.3	6Q2a K 0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.3		6.3 5.6 5.6 5.6 6.5 6.0 8.1 6.6 9.4 5.9	13.5 12.5 12.5 12.2 14.2 16.3 17.3 16.3 23.4 21.0		Ext.			CEC	Ext.	15-bar			503 Sum cuttons Pct. 53 55 54 58 61 62 63 65 69 72	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-34 34-38 38-45 45-53 72+	5.1 5.0 6.2 6.0 9.0 8.4 14.4	1.6 1.5 1.9 2.7 3.4 3.7 3.6 5.2 8.4	6P2a Na 0.2 0.2 0.4 0.4 0.5 0.8 0.8 1.3 0.8	8Q2a K 0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.5 0.2	meg/100 g	6.3 5.6 5.6 5.9 6.6 6.5 6.0 8.1 6.6 9.4 5.9	5Abe Sum cations 13.5 12.5 12.2 14.2 14.6.8 17.3 16.3 23.4 21.0 34.0		Ext.		-	CEC	Ext.	15-bar			503 Sum cuttons Pct. 53 55 54 58 61 62 63 65 69 72	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-34 34-38 38-45 45-53 72+	5.1 5.0 4.4 5.0 6.2 6.4 6.0 9.0 8.4	1.6 1.5 1.9 2.7 3.7 3.6 5.2 4.9	0.2 0.2 0.2 0.2 0.4 0.5 0.5 0.8 1.3	6Q2a K 0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.3	meg/100 g	6.3 5.6 5.6 5.6 6.5 6.0 8.1 6.6 9.4 5.9	13.5 12.5 12.5 12.2 14.2 16.3 17.3 16.3 23.4 21.0		Ext.			CEC	Ext.	15-bar			503 Sum cuttons Pct. 53 55 54 58 61 62 63 65 69 72	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-34 34-38 38-45 45-53 72+	5.1 5.0 6.2 6.0 9.0 8.4 14.4	1.6 1.5 1.9 2.7 3.4 3.7 3.6 5.2 8.4	0.2 0.2 0.2 0.4 0.4 0.5 0.5 0.8 1.3 0.8	6Q2a K 0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.5 0.5	meg/100 g	6.3 5.6 5.6 5.9 6.6 6.5 6.0 8.1 6.6 9.4 5.9	5Abe Sum cations 13.5 12.5 12.2 14.2 14.6.8 17.3 16.3 23.4 21.0 34.0		Ext.			CEC	Ext.	15-bar			503 Sum cuttons Pct. 53 55 54 58 61 62 63 65 69 72	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-34 34-38 38-45 45-53 72+	5.1 5.0 6.2 6.0 9.0 8.4 14.4	1.6 1.5 1.9 2.7 3.4 3.7 3.6 5.2 8.4	6P2a Na 0.2 0.2 0.4 0.4 0.5 0.8 0.8 1.3 0.8	0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.5 0.2	meg/100 g	6.3 5.6 5.6 5.9 6.6 6.5 6.0 8.1 6.6 9.4 5.9	5Abe 3am cellons 13.5 12.5 12.2 16.8 17.3 16.3 23.4 21.0 34.0		Ext.		-	CEC Sum	Ext. iron	15-ber woter	Ca/Mg		503 Sum cutions Fct. 53 55 51 58 61 62 63 65 69 72 67	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-34 34-38 38-45 45-53 72+	5.1 5.0 6.2 6.0 9.0 8.4 14.4	1.6 1.5 1.9 2.7 3.4 3.7 3.6 5.2 8.4	0.2 0.2 0.2 0.4 0.4 0.5 0.8 1.3 0.8	0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.5 0.2	meg/100 g	6.3 5.6 5.6 5.9 6.6 6.5 6.0 8.1 6.6 9.4 5.9	5Abe 3am cellons 13.5 12.5 12.2 16.8 17.3 16.3 23.4 21.0 34.0	Gibbeite	Ext.		-	CEC Sum	Ext. iron	15-ber woter	Ca/Mg		503 Sum cutions Fct. 53 55 51 58 61 62 63 65 69 72 67	NH ₄ C
0-3 3-6 6-16 16-20 20-28 28-34 34-38 38-45 45-53 72+	5.1 5.0 6.2 6.0 9.0 8.4 14.4	1.6 1.5 1.9 2.7 3.4 3.7 3.6 5.2 8.4	0.2 0.2 0.2 0.4 0.4 0.5 0.8 1.3 0.8	0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.5 0.2	meg/100 g	6.3 5.6 5.6 5.9 6.6 6.5 6.0 8.1 6.6 9.4 5.9	5Abe 3am cellons 13.5 12.5 12.2 16.8 17.3 16.3 23.4 21.0 34.0	Gibbeite	Ext.		-	CEC Sum	Ext. from	15-ber weter 15-ber weter 15-ber weter	Ca/Mg chlorits, V x. = quartz, tt determine	KJ, — Kaol d, dask —	503 Sum cuttons Pct. 53 55 58 63 63 67 72 67	Pet
0-3 3-6 6-16 16-20 20-28 28-34 34-38 38-45 45-53 72+	5.1 5.0 6.2 6.0 9.0 8.4 14.4	1.6 1.5 1.9 2.7 3.4 3.7 3.6 5.2 8.4	0.2 0.2 0.2 0.4 0.4 0.5 0.8 1.3 0.8	0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.5 0.2	meg/100 g	6.3 5.6 5.6 5.9 6.6 6.5 6.0 8.1 6.6 9.4 5.9	5Abe 3am cellons 13.5 12.5 12.2 16.8 17.3 16.3 23.4 21.0 34.0	Gibbeite	Ext.			CEC Sum	Ext. from	15-ber weter 15-ber weter 15-ber weter	Ca/Mg	KJ, — Kaol d, dask —	503 Sum cuttons Pct. 53 55 58 63 63 67 72 67	Pet
0-3 3-6 6-16 16-20 20-28 28-34 34-38 38-45 45-53 72+	5.1 5.0 6.2 6.0 9.0 8.4 14.4	1.6 1.5 1.9 2.7 3.4 3.7 3.6 5.2 8.4	0.2 0.2 0.2 0.4 0.4 0.5 0.8 1.3 0.8	0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.5 0.2	meg/100 g	6.3 5.6 5.6 5.9 6.6 6.5 6.0 8.1 6.6 9.4 5.9	5Abe 3am cellons 13.5 12.5 12.2 16.8 17.3 16.3 23.4 21.0 34.0	Gibbeite	Ext.			CEC Sum	Ext. from	15-ber weter 15-ber weter 15-ber weter	Ca/Mg chlorits, V x. = quartz, tt determine	KJ, — Kaol d, dask —	503 Sum cuttons Pct. 53 55 58 63 63 67 72 67	Pet
0-3 3-6 6-16 16-20 20-28 28-34 34-38 38-45 45-53 72+	5.1 5.0 6.2 6.0 9.0 8.4 14.4	1.6 1.5 1.9 2.7 3.4 3.7 3.6 5.2 8.4	0.2 0.2 0.2 0.4 0.4 0.5 0.8 1.3 0.8	0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.5 0.2	meg/100 g	6.3 5.6 5.6 5.9 6.6 6.5 6.0 8.1 6.6 9.4 5.9	5Abe 3am cellons 13.5 12.5 12.2 16.8 17.3 16.3 23.4 21.0 34.0	Gibbeite	Ext.			CEC Sum	Ext. from	15-ber weter 15-ber weter 15-ber weter	Ca/Mg chlorits, V x. = quartz, tt determine	KJ, — Kaol d, dask —	503 Sum cuttons Pct. 53 55 58 63 63 67 72 67	Pet
0-3 3-6 6-16 16-20 20-28 38-38 38-45 38-45 53-72 72+	5.1 5.0 6.2 6.0 9.0 8.4 14.4	1.6 1.5 1.9 2.7 3.4 3.7 3.6 5.2 8.4	0.2 0.2 0.2 0.4 0.4 0.5 0.8 1.3 0.8	0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.5 0.2	meg/100 g	6.3 5.6 5.6 5.9 6.6 6.5 6.0 8.1 6.6 9.4 5.9	5Abe 3am cellons 13.5 12.5 12.2 16.8 17.3 16.3 23.4 21.0 34.0	Gibbeite	Ext.			CEC Sum	Ext. from	15-ber weter 15-ber weter 15-ber weter	Ca/Mg chlorits, V x. = quartz, tt determine	KJ, — Kaol d, dask —	503 Sum cuttons Pct. 53 55 58 63 63 67 72 67	Pel
0-3 3-6 6-16 16-20 20-28 38-38 38-45 38-45 53-72 72+	5.1 5.0 6.2 6.0 9.0 8.4 14.4	1.6 1.5 1.9 2.7 3.4 3.7 3.6 5.2 8.4	0.2 0.2 0.2 0.4 0.4 0.5 0.8 1.3 0.8	0.3 0.2 0.1 0.2 0.2 0.2 0.3 0.3 0.5 0.2	meg/100 g	6.3 5.6 5.6 5.9 6.6 6.5 6.0 8.1 6.6 9.4 5.9	5Abe 3am cellons 13.5 12.5 12.2 16.8 17.3 16.3 23.4 21.0 34.0	Gibbeite	Ext.			CEC Sum	Ext. from	15-ber weter 15-ber weter 15-ber weter	Ca/Mg chlorits, V x. = quartz, tt determine	KJ, — Kaol d, dask —	503 Sum cuttons Pct. 53 55 58 63 63 67 72 67	Pet

Soil Type: *Amagon silt loam

Soil No.: S51Miss-6-2 Location: Bolivar County, Mississippi Collected by: George E. Rogers and party

Horizon and Beltsville Lab. No.

0 to 2 3/4 inches. Light gray (10YR 7/2) silt loss (dry); weak fine granular structure; 51806 friable; many fine roots; medium acid; clear smooth boundary.

2 3/4 to 5 3/4 inches. Very pale brown (10YR 8/3) silt losm (dry) with common fine distinct A2 51807 mottles of yellowish brown (10YR 5/6); weak fine subangular blocky structure; friable; many fine roots; strongly acid; gradual, smooth boundary.

5 3/4 to 16 inches. Very pale brown (10YR 7/3) silt loam (dry) with common fine distinct mottles of brownish yellow (10YR 6/8); weak fine subangular blocky structure; friable; 51808 common fine roots; few fine brown and black concretions; strongly acid; gradual smooth boundary.

16 to 20 inches. Light brownish gray (10YR 6/2) silt loam (moist) with common fine distinct mottles of yellowish brown (10YR 5/8); weak fine and medium subangular blocky B21tg 51809 structure; friable; patchy clay films on peds; few fine vesicles; few fine roots; strongly acid; gradual smooth boundary.

B21tg 20 to 28 inches. Same as horizon above, divided for sampling purposes. 5181ŏ

28 to 34 inches. Pale brown (LOYR 6/3) silt loam (moist) with common to many medium distinct mottles of yellowish brown (LOYR 5/8) and yellowish red (5YR 5/8); weak fine B22t (Ab?) 51811 granular structure; friable; few fine vestcles; few fine roots; few fine brown and black concretions; strongly scid; gradual smooth boundary.

B22t 34 to 38 inches. Same as horizon above, divided for sampling purposes. (Ab?) 51812

B3lg 38 to 44 3/4 inches. Light brownish gray (10YR 6/2) silty clay loam (moist) with common (B21b?) fine and medium distinct mottles of yellowish brown (10YR 5/8) and dark yellowish brown 51813 (10TR 4/4); weak medium subangular blocky structure; friable; few fine brown and black concretions; few fine roots; strongly acid; gradual wavy boundary.

B32g 44 3/4 to 53 1/2 inches. Pale brown (10YR 6/3) silty clay loam (moist) with common fine and medium distinct mottles of yellowish brown (10YR 5/8); weak coarse subangular blocky (B22b?) 51814 structure grading to massive; friable; few fine brown and black concretions; few fine roots; strongly acid; gradual wavy boundary.

53 1/2 to 72 inches. Grayish brown (10YR 5/2) silty clay (moist) with common medium and coarse distinct mottles of strong brown (7.5YR 5/8) and brownish yellow (10YR 6/6); weak IIClg 51815 coarse subangular blocky structure; very firm; few to common fine brown and black concretions; few fine roots; strongly acid; gradual wavy boundary.

11C2g 72+ inches. Light browniah gray (10YR 6/2) silty clay loam (moist) with common medium strong brown (7.5YR 5/8) mottles; weak coarse subangular blocky structure; friable; few soft 51816 manganese concretions; few fine roots; strongly acid.

SOIL Amite fine sandy losm SOIL Nos. S56Mtes-55-1 LOCATION Pearl River County, Mississippi

COUNTY LARGORATORY Beltsville, Maryland LAR, Nos. 56562 - 56570

	LABORATO	KI									. Nos		- 5657	-		,		
	r	1815						Şire ciser	and partic	le diamete	r (mm) 8A	<u> </u>						_
,			Total					Sand		Sil	1				3B2		rse fragmer	nts 3
Depth	Horizon	Sand	Silt	Clay	Very	Coarse	Medium	Fine	Very fine		Int. 🎞	Int. II				2A2 >- 2	2 - 19	10-
(In.)	110112411	(2-0.05)	(0.05-	(= 0.002)	course (2-1)		(0.5-0.25)	(0.25-0.1)		0.05-0.02	(0.02-	(0.2-0.02)	(2-0.1)		Cm	- '		ı
- '		1	0.002)	I	'',		 . of ≪ 2 =				0.002)	'				Pct.		t. of _ 'Smm
0-6	Ap		30.9	7 9.8	0.6	13.6	21.7	19.6	3.8		18,0	23.7				-		Ĺ
6-10	B1		33.6	22.9	0.4	9.8	15.9	14.4	3.0		21.7	20.5				-		l
10-19	B2lt	L	29.3	29.1	0.7	9.4	15.1	13.6	2,8		18,7	18.3				tr.		L
19-27	B22t		22.4	28.4	1.0	11.0	17.5	16.3	3.4		14.8	16.8				tr.		
27-34	B23t		18.9	28.6	0.8	10.6	19.1	18.2	3.8		11.2	18.2				tr.		l
34-43 43-52	B24t B25t	—-	48.5 64.5	13.4	3.0	7.9 3.2	2.0	7.5 3.9	10,1 6.8		29.8 28.8	32.8 44.7				tr.		╁
	B31t		65.1	12.2	2.2	2.6	1,9	4.7	11.3		35.7	43.7				tr.		
60-72+			55.1	21.6	2.9	2.9	2.3	5.8	9.4		34.5	33.4		L		-		
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52-60	0.00													l				14 . 14 .
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10-19 19-27	1.1	1.2	tr.	0.1		4.8	7.1					1					32	T
			tr.	0.1		4.8	6.4		l -								25	
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27-34 34-43 43-52 52-60 60-72+	0.6	0.7 0.6 0.7 0.5	tr. tr. tr.	O.1 O.1 O.1 Mi.		5.0 4.6 4.4	5.6 5.4	Gibbalte					,				18	
27-34 34-43 43-52 52-60 60-72+	0.6	0.7 0.6 0.7 0.5	tr. tr. tr. tr.	O.1 O.1 O.1 Mi.		5.0 4.6 4.4	5.6 5.b	Gibbalte						nite, Chi. =			18	- ma
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27-34 34-43 43-52 52-60 60-72+	0.6	0.7 0.6 0.7 0.5	tr. tr. tr. tr.	O.1 O.1 O.1 Mi.		5.0 4.6 4.4	5.6 5.b					int. — i Relativ	nterstratific amounts:	ed layer, Qi black — no	z. — quertz it determina	, KI, Kad ed, dash	niculits, mi	ted,
27-34 34-43 43-52 52-60 50-72+	0.6	0.7 0.6 0.7 0.5	tr. tr. tr. tr.	O.1 O.1 O.1 Mi.		5.0 4.6 4.4	5.6 5.b					int. — i Relativ	nterstratific amounts:	ed layer, Qi black — no	z. — quertz it determina	, KI, Kad ed, dash	niculits, mi	ted,
27-34 34-43 43-52 52-60 60-72+	0.6	0.7 0.6 0.7 0.5	tr. tr. tr. tr.	O.1 O.1 O.1 Mi.		5.0 4.6 4.4	5.6 5.b					int. — i Relativ	nterstratific amounts:	ed layer, Qi black — no	z. — quertz it determina	, KI, Kad ed, dash	niculits, mi	ad,
27-34 34-43 43-52 52-60 50-72+	0.6	0.7 0.6 0.7 0.5	tr. tr. tr. tr.	O.1 O.1 O.1 Mi.		5.0 4.6 4.4	5.6 5.b					int. — i Relativ	nterstratific amounts:	ed layer, Qi black — no	z. — quertz it determina	, KI, Kad ed, dash	niculits, mi	ad,
27-34 34-43 43-52 52-60 50-72+	0.6	0.7 0.6 0.7 0.5	tr. tr. tr. tr.	O.1 O.1 O.1 Mi.		5.0 4.6 4.4	5.6 5.b					int. — i Relativ	nterstratific amounts:	ed layer, Qi black — no	z. — quertz it determina	, KI, Kad ed, dash	niculits, mi	ted,
27-34 34-43 43-52 52-60 50-72+	0.6	0.7 0.6 0.7 0.5	tr. tr. tr. tr.	O.1 O.1 O.1 Mi.		5.0 4.6 4.4	5.6 5.b					int. — i Relativ	nterstratific amounts:	ed layer, Qi black — no	z. — quertz it determina	, KI, Kad ed, dash	niculits, mi	ted,

Soil Type: Amite fine sandy loam

Soil No.: 856Miss-55-1

Location: Pearl River County, Mississippi, 3/8 mile south of main house on McNeil Experiment Station in open grazing plot. Photo CZL_4H-38

Vegetation and land use: Oats for winter and spring grazing

Slope and land form: Gently sloping

Drainage: Well drained

Parent Material: Sandy Coastal Plain material Collected by and date: I. L. Martin and Y. H. Havens, April 17, 1956

Described by: Y. H. Havens

Horizon and Beltsville Lab. No.

B25t

0 to 6 inches. Dark brown (7.5YR 3/2) very friable fine sandy loam; weak medium and fine Ap 56562 granular structure; few worm and root channels filled with material from lower horizons. Abundant fine fibrous roots throughout the Ap; abrupt smooth boundary.

Bl 6 to 10 inches. Red (2.5YR 4/6) friable light sandy clay loam; weak medium and coarse 56563 subangular blocky structure; few thin clay skins in old root channels; dark brown sandy loam material in root and worm channels from horizon above; plentiful fine fibrous roots; abrupt wavy boundary.

10 to 19 inches. Dark red (2.5TR 3/6) firm heavy clay loam; moderate medium and coarse B21t subangular blocky structure; numerous clay skins on ped faces and in root channels; few 56564 to plentiful fine fibrous roots; clear smooth boundary.

B22t 19 to 27 inches. Dark red (2.5YR 3/6) firm clay loam; moderate medium and coarse subangular blocky structure; clay skins numerous on ped faces and in worm and root channels; few manganese concretions and few dark coatings on ped faces; few fine fibrous roots; gradual 56565 boundary.

27 to 34 inches. Dark red (2.5TR 3/6) firm to friable light clay loam; moderate medium and B23t coarse subangular blocky structure; discontinuous clay skins between sand grains; some thin clay skins on ped faces; few fine fibrous roots; diffuse boundary. 56566

B24t 34 to 43 inches. Dark red (2.5YR 3/6) friable to firm sandy clay losm; moderate medium and coarse subangular blocky structure. Few thin discontinuous clay skins on ped faces and between sand grains; few medium and coarse rounded quartz; diffuse boundary. 56567

43 to 52 inches. Dark red (2.5YR 3/6) friable sandy clay loam; weak to moderate medium 56568 and coarse subangular blocky structure; thin and discontinuous clay skins on ped faces; few medium and coarse rounded quartz; diffuse boundary.

52 to 60 inches. Dark red (10R 3/6-4/6) friable sandy clay losm; weak medium and coarse subangular blocky structure; discontinuous clay skin bridges between the coarse sand **B31t** 56569 grains; diffuse boundary.

60 to 72+ inches. Dark red (10R 3/6-4/6) friable light sandy clay loam; weak medium and 56570 coarse subangular blocky structure; numerous coarse rounded quartz grains.

Notes: Colors of soils moist unless otherwise stated.

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Soll Amite fine sandy losm

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856-Miss-55-2 Incation Pearl River County, Mississippi

SOIL SURVEY LABORATORY	Beltsville, Maryland		LAB. I	vos. <u>56571 - 56578</u>
		-		

	Ì	181b						Site clas	s and parti	cle diamete	r (mm) 3A	1						
			Total					Sand		Sil	t]			362	Con	se fragme	nts 381
Depth (In.)	Horizon	\$and (2-0.95)	\$in (0.05- 0.002)	Clay (< 0.002)	Vary coarse (2-1)		Medium (0.5–0.25)		Very fine (0.1-0.05)	0.05 -0.02	int, III (0.02– 0.002)	Int. II (0.2–0.02)	(2-0.1)		Cm	2A2 >> 2 Pct.	2 - 19 	19 – 76 st. of
	Ap Bl B21t		5.4 11.3 28.9	35.5 32.3 26.2	1.2 1.3 0.0	13.4 12.0 10.0	20.2 19.3 15.8	19.7 19.6 15.6	4.5 4.3 3.5		12.1 13.4 11.4	5.4 9.7 26.8				tr.		
	B22t B23t B24t		4.6 26.5 5.5	35.1 24.7 31.5	0.1 0.9 0.6	13.8 9.7 13.1	20.7 17.7 23.5	21.0 17.1 21.6	3.4 3.4 4.7		15.4 10.5 11.9	1.7 25.6 5.5				tr. tr.		
53-64 64-72+	B31t B32t		17.3 19.3	24.2 22.9	1.0 0.7	12.8 12.5	21.7 21.7	19.4 19.2	3.6 3.7		11.¥ 10.8	16.6 19.3				tr.		
									<u> </u>									
Depth	GAla Organic	Nitrogen	C/N		Çarbonate			Bulk densii 4Ale	4A1h	401		Veter conte 481c	4B2		4C1		pH BClc	8Cla
(in.)	carbon				es CuCO ₃	aa fo		³≤ ber	Owen dry	COLE		3⊈ ber	16 ber		WRD		(1:1)	(1:1)
	Pct.	Pct.			Pct.	Pct.	g/os	g/c=	g/cs		Pct,	Pat.	Pot		in/in		KC#	H ₂ O
17-55 6-17 0-6	0.06	0.028	6 18															5.3 5.1
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Soil Type: Amite fine sandy losm

Soil No.: S56Miss-55-2

Location: Pearl River County, Mississippi, Zell Barker farm, 1.5 miles NW of Carriere Con. School,

250 feet west of Mr. Barker's home in oat field. Photo CZL-3H-200

Vegetation and land use: Oats for winter grazing and grain

Slope and land form: Nearly level

Drainage: Surface drainage is rather slow. Internal water movement is good. This is a well drained

profile

Parent Material: Sandy Coastal Plain material Collected by and date: I. L. Martin and Y. H. Havens, April 18, 1956

Described hv: Y. H. Havens

Horizon	and
Beltsvi	lle
Lab. No	

0 to 6 inches. Dark brown (7.5YR 3/2 - 7.5YR 4/2 dry) friable fine sandy losm; weak Ap 56571 fine granular structure (has thin layer of weak platy structure on surface); has pockets of yellowish red (5TR 4/8) from Bl horizon; abundant fibrous roots; abrupt wavy boundary; weak plow sole present.

56572 6 to 11 inches. Yellowish red (5YR 4/8) friable light sandy clay loam; worm and root channels filled with dark brown (7.5YR 3/2-1/2); pockets of dark brown sandy material from Ap horizon; weak fine and medium subangular blocky structure; plentiful fine fibrous roots; clear smooth boundary.

11 to 22 inches. Dark red (2.5YR 3/6) firm clay loam or sandy clay; moderate to strong B21t medium and coarse subangular blocky structure; clay skins thin but continuous on ped faces and in root channels and wormholes; fine fibrous roots are plentiful; clear smooth 56573 boundary.

22 to 33 inches. Dark red (2.5YR 3/6) friable to firm clay loam; moderate medium and B22t coarse subangular blocky structure; thin clay skins on a majority of ped faces; few 56574 small manganese concretions; few fine fibrous roots; gradual wavy boundary.

B23t 33 to 44 inches. Dark red (2.5YR 3/6) friable to firm clay loam; weak to moderate 56575 medium and coarse subangular blocky structure; thin discontinuous clay skins on ped faces; few fine fibrous roots; gradual boundary.

44 to 53 inches. Dark red (2.5YR 3/6) friable to firm sandy clay loam; weak to moderate B24t 56576 medium and coarse subangular blocky structure; thin discontinuous clay skins on ped faces; few scattered quarts grains; gradual wavy boundary.

B31t 53 to 64 inches. Dark red (10R 3/6) friable sandy clay loam; weak medium and coarse 56577 subangular blocky structure; few discontinuous clay skins on ped faces and in pore and root channels; few rounded coarse quartz.

B32t 64 to 72+ inches. Dark red (10R 3/6) friable sandy clay loam; weak medium and coarse 56578 subangular blocky structure; few coarse rounded quarts; few thin clay skins in pores.

Notes: Colors of soil moist unless otherwise stated.

SOIL TYPE Amite LOCATION Nonroe County, Mississippi silt loam

SOIL NOS. S61M188-48-1 LAB. NOS. 15158-15164

43001000111011101111011	() (1.100 4) = 144,	<u> </u>	Bla	PARTI	CLE-SIZ	E DISTRIE	UTION (in	::::::::::::::::::::::::::::::::::::::	r cent)	3A1		* 1004 * 10040 * 11407 207 * 700
DEPTH INCHES	HORIZON	SAND	SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY			2A2 > 2	TEXTURAL CLASS
		2-1	1-0,5	0.5-0.25	0.25-0.10		0,05-0,002	< 0.902	*	0.02-0.002		
0-6	Ap	0.3a	1.6	5.2	18.6	4.3	59.9	10.1		29.4	•	sil
6-10		<0.1 <0.1	0.8	2.9	10.6 14.4	2.5 3.2	58.2 46.4	25.0 30.9		37.2 29.1	-	sil cl
10-23 23-37		<0.1	0.8	3.9 2.9	10.2	2.4	54.0	29.7		34.5	-	sicl
37-50	_	<0.1	1.2	4.8	17.7	3.7	39.3	33.3	26.7		_	cl
50-65	;	<0.1	1.3	4.8	19.2	3.9	35.7	35.1	25.8		_	cl
65-80		0.1a	, - ,	6.4	23.4	4.3	ž8.9	35.2		17.4	-	cl
						: : : :	******************	11000	***************************************	120110000416011011	. - 1000 1 1000 1	*************
[q	1	Orga	mic Ma	tter			lk Dens			MOIST	URE TE	NSIONS
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1:1	1:1	%	75		g 1	* }	4B3, M.	4 A }cc	y)te	leçes	15-Atm	Sieved
5.5	4.8	0.57	0.048	12	13.5	1.61	20.5	1.59	1.61	13.0	.14	4.2
5.5	4.4	0.26	0.044	6								8.9
5.8	4.8	0.19	0.038		16.5	1.56	20.7	1.52	1.60	21.6	.16	10.8
5.2	3.8	0.06	0.029							- * -	_	11.0
4.6	3.6	0.06			1,6.2	1.71	19.1	1.68	1.75	18.9	.12	11.8
4.6	3.4	0.05			į		•					12.7
4.8	3.6	0.04			700 Transport							12.9
5 Ala		EXTRAC	TABLE	CATIONS	5 B 1	·MCHIMMINI A	Base	5A3a	5C3	Sum	8D3	6Cla
		Ext.		·· · · ·	6HLa	602s	Sat.	Sum	Base	Ext.		Free
CATION EXCHANGE EAPACITY VHLOAG		602b		602a	H	Αl	MHI QAC		Set. % Sum Out.		Ca/Mg	(Fe ₂ O ₂)
			alents per	VOCg. sci	,		5C1.		e/100g			: <u>?</u>
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6.9	3.8	1.0	<0.1	0.4	5.6	0.1	75	10.8	48 61	5.3	3.8 3.4	2.4
8.4	5.4	1.6	0.1	0.2	4.7 6.3	~ -	87	11.5	45	7.3	1.7	
9.1 7.6	3.0	1.8	0.2	0.2		0.5 2.5	57 30	10.7	ži	5.7 4.8		2.9
9.1	0.4	1.4	0.1	0.4	2	2.6	25	10.2	23	4.9		2.9
8.8	1.6	2.2	0.1	0.4	6.3	1.2	49	10.6	40	5.5	0.7	3.0
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Soil Type: Amite silt loam Soil Nos.: S61Miss-48-1

Location: Monroe County, Mississippi, 3½ miles east of Amory on U. S. Highway 278 and 3/4 mile north on gravel road and 250 feet west of road. SEL/4 NW1/4, Sec. 4, T138, RSE.

Vegetation and Use: Cotton. Slope and Land Form: Nearly level (1 percent slope).

Drainage and Permeability: Well drained with medium to rapid runoff and medium internal drainage. Permeability is

moderate.

Parent Material: Moderately fine textured Coastal Flain.
Collected by: J. S. Allen and Dean C. McMurtry, Jr., May 17, 1961.
Described by: L. C. Murphree and R. C. Carter, May 17, 1961.

Horizon and Lincoln Lab. No.

O to 6 inches. Dark brown (7.5YR 3/2) silt loam with high sand content; weak fine and medium granular Ap 15158 structure; friable; few fine roots; few worm casts; clear smooth boundary.

6 to 10 inches. Dark reddish brown (5YR 3/4) silt loam or loam; weak fine and medium granular and medium subangular blocky structure; friable; few fine roots; material from Ap horizon in root and worm-A3 15159 holes; few worm casts; clear smooth boundary.

10 to 23 inches. Dark reddish brown (2.5YR 3/4) light clay loam; moderate fine and medium subangular blocky structure; friable; slightly plastic; few fine roots; few fine soft black concretions and coatings; B21t 15160 few worm casts; material from Ap horizon in root and worm channels; gradual smooth boundary.

23 to 37 inches. Dark reddish brown (2.5YR 3/4) clay loam; moderate medium subangular blocky structure; friable; slightly plastic; few fine roots; common fine soft black concretions and coatings; patchy clay films on ped faces and in cracks; gradual smooth boundary. B22t 15161

37 to 50 inches. Dark reddish brown (2.5YR 3/4) to dark red (2.5YR 3/6) clay loam; moderate coarse and medium angular and subangular blocky structure; friable; slightly plastic; few fine roots; few fine soft black concretions and coatings; patchy clay films on ped faces and in cracks; diffuse smooth boundary. B23t 15162

B24t 50 to 65 inches. Same as above horizon - divided for characterization. 15163

125t 65 to 80 inches. Dark red (10R 3/6) light sandy clay losm; moderate coarse and medium angular blocky 15164 structure; friable; slightly plastic; few fine roots; patchy clay films on ped faces and in cracks.

Remarks: The E21t and E23t horizons were sampled for the Bureau of Public Roads. Colors given are for moist soil.

Mineralogy (Method 7B): The mineralogy is uniform throughout. Quartz and feldspar dominate the very fine sand, with small amounts of kyanite, zircon, and tourmaline present.

SOIL TYPE Amite LOCATION Nonroe County, Mississippi silt loam

SOIL NOS.

961Miss-48-2 LAB. NOS. 15165-15171

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DEPTH INCHES	HORIZON		COARSE SAND	MEDIUM SAND	PINE SAND	VERY FILE SAND	SILT	CLAY		3A1	2A2 > 2	TEXTURAL CLASS
		2-1	1-0.5	0.5-0.25	0.25-0.10	0.10-0.05	0.05-0.002	< 0.002	0.2-0.02	C02-C002	1	ļ
Ö-6	Ap	0.1	2.1	7.0	23.2	5.4	50.4	11.8	42.7	22.5		sil/1
6-9	A3	0.1 a	1.1	3.5	13.0	2.9	54.8	24.6	29.0	33.9	<u>_</u>	sil
9-21		0.1 a	1.3	3.8	12.8	2.8	49.9	29.3	27.3		-	cl/sic
21-35		<0.1	1.8	5.1	17.0	3.7	43.0	29.4		25.7	 -	cl
35-48	B23t	0.1 a	2.0	6.6	21.6		33.1	32.1	25.6	20.4	_	cl
48-61		0.2 a	2.2	8.0	23.8	4.6	29.4	31.8		15.0	-	cl
61-80	B 25t	0.2 a	2.7	9.2	28.4	5.1	22.8	31.6	24.7	13.8	-	scl
****************************					persei vz eliuzgieni ti		denominado La Dancia		4.2.18.55 318 6.8488873			
Hq	0.00		anic M	atter	 	דמק ב	k Densi	СУ			TURE TE	h .
H ₂ O	KC1	O.C.	6Bla N	C/N		l Moist	30		A.D.	ATMOS.	4C1 1/3-to	I ATMOS.
1:1	1:1	. %	*		% M.	#Ale g/cc	4B3 % M.	#ATC	MALD g/cc	Pieces	15- Ata	Sieved
5.3	4.5		0.044	10	14.6	1.42	18.5	1.40	1.42	12.0	1 n./iz .10	4.5
5.7	4.8		0.044	7	14.0	T-	10.7	1.70	T 0 76-	, TE . O	بد.	9.1
5.8	5.0	0.16	0.036		16.6	1.60	20.4	1.56	1.67	21.1	.16	11.0
5.6	4.9		0.027		20.0	2.00	2017				, , , ,	10.9
5.3	4.5	0.06	0.00.		15.8	1.74	18.4	1.70	1.79	18.3	.11	11.7
5.3	3.8	0.05				 .			, ,	1		11.6
4.8	3.3	0.03										11.1
\$49 \$ \$42 5 \$4	999 0 354 3 3 4 9 5 6 9 6 9 7	14 3 161 f 0+ 16+ (18+11		. 6501.016 + 1.511.440461		Mets 1.54444644456164648	20711004 10114 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0046 0 ° 4 5 k 010 (6 5 5 5 6	c14100 C 10410 1111	83848 774 4403 02543		partini glessionia dia
SALE			TABLE (CATIONS		4.	Bese	5A3a.	5C3	Sum	8103 <u>.</u>	601a
CATION		Ext.	Beses		62П.в.	602a	Sat. %	Storm	Base	Ext.		Free
XCHANGE CAPACITY NHLLOAC	6 182 b	Mg 602b millioguiy	6P2a	1002m	H	>	RHIOAC Exch.		Stat. % Stan Cart. e/300c	Bases and Al	Ca/Ma	(Fe _g O ₃)
4.5	2.6	*****	<0.1	0.4	4.2		84	8.0	48	3.8		1.0
7.2	4.8	1.1	<0.1	0.3			86	12.7	49	6.2	4.4	2.1
8.6	5.7	1.6	0.1	0.2	4.9		90	12.6	61	7.7	3.6	2.5
8.3	4.5	1.9	0.1	0.2	4.4	_	81	11.1	60	6.7	2.4	2.7
7.6	3.2	2.0	0.1	0.3	5.6	0.1	74	11.2	50	5.7	1.6	2.5
7.8	2.6	2.0	0.1	0.3		0.3		10.4	48	5.3	1.3	2.6
7.0	0.9	1.2	0.1	0.2	7.4	2.4	34	9.8	24	4.8	† – – – 1	2.7
a. M	any Fe	/Mn? +b	earing	aggre	gates.							
						,		- profits Benedice		P		r va de
1			į				1	ļ	Ī	!	j	İ

Soil Type: Amite silt losm
Soil Nos.: S61Miss-48-2
Location: Mississippi, 32 miles east of Amory on U. S. Highway 278 and about 1/2 mile south on gravel road and 250 feet west of road. NE 1/4 NW 1/4, Sec. 8, T138, RSE.

Vegetation and Use: Cotton.

Horison and Lincoln Iab. No.

15170

腔st 15171

faces.

with small amounts of kyanite, zircon, and tourmaline present.

Slope and Iand Form: Hearly level (1 percent slope).

Drainage and Permeability: Well drained with medium to rapid runoff and medium internal drainage. Permeability is

moderate.

Parent Material: Moderately fine textured Coastal Plain.

ATT - 1888 AND AND ADDRESS OF THE PARTY AND AD

0 to 6 inches. Dark brown (7.5%R 3/2) silt loss with high sand content; weak fine and medium granular Ap 15165 structure; very friable; few fine roots; few worm casts; abrupt smooth boundary. 6 to 9 inches. Dark reddish brown (5YR 3/4) losm; weak fine and medium granular and medium subangular A3 15166 blocky structure; friable; few fine roots; few worm casts; clear smooth boundary. 9 to 21 inches. Dark reddish brown (2.5YR 3/4) light clay loss; moderate fine and medium subangular **E**21t 15167 blocky structure; friable; slightly plastic; few fine roots; few fine soft black concretions and costings; few worm casts; gradual smooth boundary. Dark reddish brown (2.5YR 3/4) clay losm; moderate fine and medium subangular blocky 15168 structure; friable; slightly plastic; few fine roots; common fine soft black concretions; common fine and medium black coatings; few fine quartz gravel; gradual smooth boundary. **B**£3t 35 to 48 inches. Dark reddish brown (2.5YR 3/4) to dark red (2.5YR 3/6) clay loan; moderate coarse and 15169 medium angular and sunangular blocky structure; friable; slightly plastic; few fine soft black concretions and coatings; few fine quartz gravels; patchy clay films on ped faces and in cracks; diffuse smooth boundary. 48 to 61 inches. Same as above horizon - divided for characterisation. BOLL

Remarks: The E21t and E24t horizons were sampled for the Bureau of Rublic Roads. Colors given are for moist soil. Mineralogy (Mathod 7B): The mineralogy is uniform throughout. Quartz and feldspar dominate the very fine sand,

61 to 80 inches. Dark red (10R 3/6) sandy clay loss; moderate coarse angular and subangular blocky structure; friable; slightly plastic; few fine quartz gravel; patchy clay films in cracks and on ped

\$0\$-421 10-64 (Rev. 9-66)

SOIL **Askev eilt loem SOIL Nos. #51Misa-6-1 LOCATION Boliver County. Mississippi

SOIL SURVEY LABORATORY Beitsville, Maryland LAB. Nos. 51793 - 51805

Size class and particle diameter (Mm) 3A1 Sand Skit 1816 Total Coarse fragmente 3BI Very coarse (2-1) Fine Int. 🎞 Int. II SIR Clay Very fine 2 - 19 | 19-76 Horizon Depth **>** 2 (1-0.5) (0.5-0.25) (0.25-0.1) (0.1-0.05) (0.05-0.02) (0.02-0.02) (0.2-0.02) (0.05-0.002) (= 0.002) (2-0.1)(2-0.05)17.2 75.0 18.1 73.2 22.1 59.4 28.0 56.1 25.2 51.5 26.0 51.3 21.7 58.9 23.4 57.7 17.4 67.5 0-3 Apl 3-6 Ap2 6-10 B21t 10-16 B22t 16-23 B22t 27-30 B3t 30-35 B3t 30-35 B3t 19.4 18.8 12.2 12.0 7.2 8.2 18.3 22.7 23.1 22.4 0.3 0.1 0.1 1.3 1.0 0.6 0.7 0.6 0.8 1.3 2.7 71.7 71.7 68.8 tr. 0.1 0.1 0.1 0.1 64.5 65.0 65.2 64.5 63.0 -11.3 11.7 0.1 19.2 18.6 14.7 15.4 17.0 29.2 0.1 59.3 17.0 67.2 11.0 75.6 43-48 IIC2 48-53 IIC3 50.5 15.3 44.2 12.5 3.6 5.0 30.4 37.9 0.2 --0.1 0.3 27.9 6.8 6.8 0.4 5.9 85.5 IICA 0.1 19.7 45.1

Soil Type: *Askew silt loam

Soil No.: S51Miss-6-1 Location: Bolivar County, Mississippi Collected by: George E. Rogers and party

Horizon and Beltsville Lab. No.

Apl51793 0 to 3 1/2 inches. Very pale brown (10YR 7/3) silt loam; weak fine and medium granular

structure; many fine roots; friable; strongly acid; clear smooth boundary.

Ap2 3 1/2 to 6 inches. Light yellowish brown (lOYR 6/4) silt loam mottled with very pale 51794 brown (lOYR 7/3); moderate platy structure; friable; strongly acid; abrupt smooth boundary.

B21t 6 to 10 1/2 inches. Yellowish brown (10YR 5/6) heavy silt loam mottled with light gray 51795 (10YR 7/2); moderate to strong medium subangular blocky structure; friable; patchy clay films on ped faces; strongly acid; clear, smooth boundary.

B22t 10 1/2 to 16 1/2 inches. Dark yellowish brown (10YR 4/4) heavy silt loam mottled with light gray (10YR 7/2); moderate to strong fine and medium subangular blocky structure; friable; patchy dark brown (10YR 4/3) clay films on ped faces; very strongly acid. Clear 51796

smooth boundary.

B22+ 16 1/2 to 23 inches. Horizon same as above. Divided for sampling purposes. 51797

23 to 27 inches. Vallowich haven (INVR E/L) haven ofth toom

SOIL *Asker fine sandy loam SOIL Nos. D45-MI-O12 LOCATION Quitmen County. Mississippi

SOIL SURVEY LABORATORY Beltsville, Maryland

LAB. Nos. 451418 - 451423

		1B1b						Size cles	s and partic	cia diamete	r (digh) 94	1						
		TBAU	Total					Sand	e and have	210 GIRMONO Sil		i i			3B2	Coa	roo fragmen	nts 3BI
Depth	Horizon	Şand	Silt	Clay	Very coarse	Coarse	Medium	Fine	Very fine		let. 🎞	int. #				2A2 >= 2	2 - 19	
(In.)		(2-0.05)	(0.05 <u>-</u> 0.002)	(< 0.002)	(2-1)		(0.6–0.25) Lori≪ 2 <u>j</u>	l	(0.1-0.05)	0.05-0.02	(0.02 <u>–</u> 0.002)	(0.2 – 0.92)	(2-0.1)		Cm	Pct.	Po	t. of 6mm
0-5	QΑ		36.7	10.5	0.1	0.4	0.3	16.0	36.0									
5-9	B21t		32.2	27.3	-	0.1	0,2	11.9	28.3									
9-14	822t		28.6	28.4		0.1	0.2	13.3	29,4			<u> </u>		↓	<u> </u>		L	
	B31		24.5	25.4	-	0.1	0.1	12.9	37.0									
	B32g		34.4	20.7	L	0.3	0.3	9.7	34.6									
30-60	Clg		17.7	13.0	0.1	0.3	0.1	30.2	29.3				,					
	T = -											Vater conte						
	6A3a							Balk denett		4D1					401	-	pH I	ı
Depth (In.)	Organic Matter	Nitrogen	C/N		Carbonate as CaCO ₃	Ext. Iron as Fe		4Ale	4A1h Owen dry	COLE		4Blc	492 15 ber		WRD		8Clc (1:1)	8C16 (1:1)
	***	۱			Date				•		***		Pct.		in/in		KCI	H ₂ 0
0-5	Pet.	Pet.	 	 	Pct.	Pct.	g/cc	2/00	#/cc		Pct.	Pet.	ret.	-	 	 	1	
0-5 5-9 9-14	0.7 0.5 0.5																	5.1 4.8 4.4
14-22	0.1		1															4.1
30-60 55-30	0.1													ļ	ļ			4.1 4.6
		-																
		Extractab	le bases 5	B1#		6Hla	C	ĒČ	661d				stice to cla	y	8D3		Base sat	ration
Depth	6N2d	602b	6P2a	6Q2a		Ext.	5A9a	ı	Ext.			CEC	Ext.	15-ber	Ca/Mg		503	5C1
(in.)	Ca	Mg	Na	K	Sum	acidity	Sum		AI			Sum	iron	water	,•		Sum cations	NH40 Pet.
		•							٠				١.		l .	l	8.4	
0-5	3.6	1.0			meq/100 g	2.0	<u> </u>		' '		-		`		-		Pct. 62	
0-5 5-9	3.6 3.5	1.0		1.1	meg/100 g	2.9	7.6	Ĭ	<u>=</u> ,								62 62	
5-9	3.5	1.9		.2	meg/100 g	2.9 6.6 12.0	7.6		 ,				`				62	, ,,,,
	3.5 6.9	1.9		.2	meq/100 g	6.6	7.6		<u> </u>								62 44 40	, ,,,,
5-9 9-14 14-22	3.5 6.9 5.4 5.2	1.9 2.1 2.3 2.4		.2 .3 .3	meq/100 g	6.6 12.0 12.0 8.6	7.6 17.2 21.3		=								25 25 25 25 25 25 25 25 25 25 25 25 25 2	
5-9 9-14 14-22	3.5 6.9 5.4	1.9 2.1 2.3		.2 .3 .3	meq/100 g	6.6 12.0 12.0	7.6 17.2 21.3		<u>.</u>		-				_		62 44 40	
5-9 9-14 14-22 22-30	3.5 6.9 5.4 5.2	1.9 2.1 2.3 2.4		.2 .3 .3	meq/100 g	6.6 12.0 12.0 8.6	7.6 17.2 21.3 20.0 16.4		=-								62 62 44 40 48 59	
5-9 9-14 14-22 22-30	3.5 6.9 5.4 5.2	1.9 2.1 2.3 2.4		.2		6.6 12.0 12.0 8.6 4.8	7.6 17.2 21.3 20.0 16.4								_		25 25 25 25 25 25 25 25 25 25 25 25 25 2	
5-9 9-14 14-22 22-30 30-60	3.5 6.9 5.4 5.2 4.4	1.9 2.1 2.3 2.4 2.2		.2 .3 .3 .2 .2	con Analysi	6.6 12.0 12.0 8.6 4.8	7.6 17.2 21.3 20.0 16.4 11.6								_		62 62 44 40 48 59	
5-9 9-14 14-22 22-30	3.5 6.9 5.4 5.2	1.9 2.1 2.3 2.4	Vm.	2 .3 .3 .2 .2 Clay Fract		6.6 12.0 12.0 8.6 4.8	7.6 17.2 21.3 20.0 16.4	Gibbeite									62 62 14 40 48 59	
5-9 9-14 14-22 22-30 30-60	3.5 6.9 5.4 5.2 4.4	1.9 2.1 2.3 2.4 2.2	Vm. 7A:	.2 .3 .3 .2 .2 .2 .2	con Analysi	6.6 12.0 12.0 8.6 4.8	7.6 17.2 21.3 20.0 16.4 11.6	Gibbeita			-				chlorite, V		62 62 14 10 48 59	
5-9 9-14 14-22 22-30 30-60	3.5 6.9 5.4 5.2 4.4	1.9 2.1 2.3 2.4 2.2	74;	.2 .3 .3 .2 .2 .2 .2	con Analysi	6.6 12.0 12.0 8.6 4.8	7.6 17.2 21.3 20.0 16.4 11.6								chlorits, V		62 62 14 10 48 59	
5-9 9-14 14-22 22-30 30-60	3.5 6.9 5.4 5.2 4.4	1.9 2.1 2.3 2.4 2.2	74;	.2 .3 .3 .2 .2 .2 .2	con Analysi	6.6 12.0 12.0 8.6 4.8	7.6 17.2 21.3 20.0 16.4 11.6					int. — k Reletive	nterstratific emperts:	id layer, Qt blank — no		, Ki. — Kaq id, dash —	62 62 14 48 59	= mics
5-9 9-14 14-22 22-30 30-60	3.5 6.9 5.4 5.2 4.4	1.9 2.1 2.3 2.4 2.2	74;	.2 .3 .3 .2 .2 .2 .2	con Analysi	6.6 12.0 12.0 8.6 4.8	7.6 17.2 21.3 20.0 16.4 11.6					int. — k Reletive	nterstratific emperts:	id layer, Qt blank — no	z. — quertz, ot determine	, Ki. — Kaq id, dash —	62 62 14 48 59	= mics
5-9 9-14 14-22 22-30 30-60	3.5 6.9 5.4 5.2 4.4	1.9 2.1 2.3 2.4 2.2	74;	.2 .3 .3 .2 .2 .2 .2	con Analysi	6.6 12.0 12.0 8.6 4.8	7.6 17.2 21.3 20.0 16.4 11.6					int. — k Reletive	nterstratific emperts:	id layer, Qt blank — no	z. — quertz, ot determine	, Ki. — Kaq id, dash —	62 62 14 48 59	= mics
5-9 9-14 14-22 22-30 30-60	3.5 6.9 5.4 5.2 4.4	1.9 2.1 2.3 2.4 2.2	74;	.2 .3 .3 .2 .2 .2 .2	con Analysi	6.6 12.0 12.0 8.6 4.8	7.6 17.2 21.3 20.0 16.4 11.6					int. — k Reletive	nterstratific emperts:	id layer, Qt blank — no	z. — quertz, ot determine	, Ki. — Kaq id, dash —	62 62 14 48 59	= mica
5-9 9-14 14-22 22-30 30-60	3.5 6.9 5.4 5.2 4.4	1.9 2.1 2.3 2.4 2.2	74;	.2 .3 .3 .2 .2 .2 .2	con Analysi	6.6 12.0 12.0 8.6 4.8	7.6 17.2 21.3 20.0 16.4 11.6					int. — k Reletive	nterstratific emperts:	id layer, Qt blank — no	z. — quertz, ot determine	, Ki. — Kaq id, dash —	62 62 14 48 59	= mics

Soil Type: *Askew fine sandy loam

Soil No.: D45Mi-Ol2

Soil No.: D45Mi-Ol2

Location: Quitman County, Mississippi, few rods north of grove of scattered walnut trees. NW 1/4, NE 1/4, Sec. 4, T 26N, R lW.

Collected by: R. W. Simonson, H. B. Vanderford, and C. B. Melton

Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horizon and Beltsville Lab. No.

0 to 5 inches. Brown (10YR 4/3) fine sandy loam; weak, fine granular structure; very

451418 friable; few fine roots; abrupt smooth boundary.

5 to 9 inches. Brown (10YR 4/3) fine sandy clay loam; common, fine and faint yellowish brown (10YR 5/4) mottles; moderate, fine and medium subangular blocky structure; B21t 451419 firm; slightly plastic, slightly sticky; patchy clay films on peds; few fine roots; clear smooth boundary.

9 to 14 inches. Mottled brown (10YR 4/3) and dark yellowish brown (10YR 4/4) heavy 822t 451420

sandy clay loam; moderate, medium and coarse subangular blocky structure; firm; slightly plastic, slightly sticky; clay films on most of peds; few fine roots; clear smooth

boundary.

14 to 22 inches. Mottled brown (10YR $^4/3$) and dark grayish brown (10YR $^4/2$) heavy fine sandy loam; weak, medium and coarse subangular blocky structure; friable; patchy clay B31 451421 films on peds and in pores; few fine brown black concretions; gradual smooth boundary.

22 to 30 inches. Mottled light brownish gray (10YR 6/2) and yellowish brown (10YR 5/6) B32g 451422 fine sandy loam; weak, coarse subangular blocky structure; friable; few fine black brown concretions; gradual smooth boundary.

30 to 60 inches. Light brownish gray (10YR 6/2) fine sandy loam; common, fine and medium distinct strong brown (7.5YR 5/8) mottles; structureless; very friable. Clg 451423

SOIL *Askey loam

SOIL Nos. DA5-Ni-CO9 LOCATION Tunion County, Mississippi

SOIL SURVEY LABORATORY Beitsville, Maryland

LAB. Nos. 451398 - 451404

		1816						Size clas	s and parti	de diamete	r (mm) 3A	1						
	1		Totel					Sand		84		1			382	Coa	rse fregme	ents 3
	1		Sift	- A	Very		Medium		l			1				2A2	Ι -	Т-
Depth	Horizon	Sand		Clay		Coerse		Fine	Very fine		int. 🎞	Int. 🎞			l .	>- 2	2 - 19	19-
(in.)		(2-0.05)	(0.05- 0.002)	(< 0.002)	(2-1)	(1-0.5)	(0.50.25)	(0.25-0.1)	(0.1-0.05)	0.05-0.02	(0.02- 0.002)	(0.2-0.0 2)	(2-0.1)		Cm		۱ ۵	 -+ 46
	1			<u> </u>		Pc	. d = 2 :	1949			0.002)	<u> </u>		1		Pct.	-	ct. of , 76mm
0-5	Αp	<u> </u>	29.5	12.4	0.1	0.3		17.6	39.3			1		i e				1
5-11	B21t	l	27.9	35.5	0.1	0.1	0.2	6.5	29.7									1
11-16	IIB22t	l	21.8	32.1		0.2	0,2	12.7	33.0									1
16-23	IIB31	i	23,1	25.3	0.1	0.3	0.2	15.4	35.6									1
23-3Ŏ	IIB32g		37.1	26.1	0.1	0.4	0.4	14.4	21.5									1
30-43	IIICL		41.4	41.4		0.2	0,4	10.4	6.2									1
¥3-56	IVC2		27.8	18.7	-	0.1	0.1	31.5	20.8								1	
			,															
Depth	6A3a Organic	Nitrages	C/N			Put laur	- '.	Balk depait		401	W	fater conte			4C1		" pH	
(in.)	Matter	un allen	""	1	Carbonate as CaCO _b	Ext. Iron as Fe		4Ale	4A1b	AR: -		481c	482	1		1	8C1c	8C
	1.20002					20.0		⅓ ber	Oven dry	COLE		35 ber	15 ber	l	WRD		(1:1)	(1:
	1	l	l	I								1		1		l		1
	Pat.	Pct.	<u> </u>	<u> </u>	Pct.	Pet,	g/06	g/cc	g/cc		Pct.	₽ct.	Put.	L	in/in	L	KCI	H ₂
0-5	0.8											ſ						5.
5-11	1.4	l	l	1								1		1	1	1		¥.
11-16	0.9	ļ	<u> </u>				L	L										1.
16-23	0.6							1]]		1		1				4.
3-30	0.3	l	l	1								1		1	1	1		A.
<u>0-13</u>	0.6	Ь—	<u> </u>	<u> </u>	ļ ,	L		<u> </u>	ļ		ļ	<u> </u>		├	├──	 	<u> </u>	4.
3-56	-																	4.
																		H
	-	Entractal	le beses 5	 iR1=	l	6ELa	C	EC .	6G1d				etice to cle		8D3		Base sat	bente
	40044				i —		"							<u>, </u>	525		5C3	50
Jepth (in.)	6N2d	602b	6P2a	6Q2a		Ext.	5ASa	<u> </u>	Ext.			CEC	Ext.	15-bar	Ca/Mg		J 360	"
(m.)	Ca	Mg	Na	K	Sum	acidity	State		Ai			Sum	HON	water	,•		Sum	NH4
		l	l	l			cations		l								cations	1
	-		_		meq/100 g			_	-								Pct	Pc
0-5	5.8	1.4		.2		2.6	10.0										74	
5-11	11.8	3.1		•3		9.3	24.5										62	
1-16	9.6	2.9		3_		11.4	2h.2										53	ــــ
6-23						9.1	20.0	I .									54	
	8.0	2.6		- 3														
3-30	8.4	2.6		-3 -3		7.8	19.1										59	
0-43	8.4 13.3	2.6 2.7 4.4		.4		7.8 10.8	19.1 26.9										63	
0-43	8.4	2.6		.5 .7		7.8 10.8	19.1	- :-										
0-43	8.4 13.3	2.6 2.7 4.4		.4		7.8 10.8	19.1 26.9										63	
0-43	8.4 13.3	2.6 2.7 4.4		.2	ion Analysis	7.8 10.8 5.2	19.1 26.9				_						63	
<u>10-43</u> 13-56	8.4 13.3 7.9	2.6 2.7 4.4 2.2	Vm.	.4 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5	Cibbaite									63	
0-43 3-56	8.4 13.3	2.6 2.7 4.4	Vm.	.2	ion Analysis	7.8 10.8 5.2	19.1 26.9	Gibbeite				_					63	
0-43 3-56	8.4 13.3 7.9	2.6 2.7 4.4 2.2		Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5	Gibbatta									63	
0-43 3-56	8.4 13.3 7.9	2.6 2.7 4.4 2.2	7A2	.14 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5					Mt 4	ontmort#o	site, Chl	chiorite. V	n ⇒ Verm	63 66	= mic
<u>10-43</u> 3-56	8.4 13.3 7.9	2.6 2.7 4.4 2.2		.14 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5								chlorite, VI		63 66	mic
10-143 13-56	8.4 13.3 7.9	2.6 2.7 4.4 2.2	7A2	.14 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5					int. — i	terstratifie	d layer, Qtz	r. == quartz,	Ki. = Kaol	63 66	
23-30 10-43 13-56 hepth (in.)	8.4 13.3 7.9	2.6 2.7 4.4 2.2	7A2	.14 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5					int. — in Reletive	aterstratifio emounts:	d fayer, Qtz blank = no	r. == quartz, t determine	KI. – Kao i d, dash –	63 66	ed,
10-143 13-56 Depth	8.4 13.3 7.9	2.6 2.7 4.4 2.2	7A2	.14 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5					int. — in Reletive	aterstratifio emounts:	d fayer, Qtz blank = no	r. == quartz,	KI. – Kao i d, dash –	63 66	ed,
10-143 13-56 Depth	8.4 13.3 7.9	2.6 2.7 4.4 2.2	7A2	.14 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5				_	int. — in Reletive	aterstratifio emounts:	d fayer, Qtz blank = no	r. == quartz, t determine	KI. – Kao i d, dash –	63 66 iculite, mi inite not detect int, xxxx =	ed,
10-143 13-56	8.4 13.3 7.9	2.6 2.7 4.4 2.2	7A2	.14 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5					int. — in Reletive	aterstratifio emounts:	d fayer, Qtz blank = no	r. == quartz, t determine	KI. — Kaol d, dash — i — abunda	63 66 iculite, mi inite not detect int, xxxx =	ed,
<u>10-43</u> 3-56	8.4 13.3 7.9	2.6 2.7 4.4 2.2	7A2	.14 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5					int. — in Reletive	aterstratifio emounts:	d fayer, Qtz blank = no	r. == quartz, t determine	KI. — Kaol d, dash — i — abunda	63 66 iculite, mi inite not detect int, xxxx =	ed,
0-43 3-56	8.4 13.3 7.9	2.6 2.7 4.4 2.2	7A2	.14 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5					int. — in Reletive	aterstratifio emounts:	d fayer, Qtz blank = no	r. == quartz, t determine	KI. — Kaol d, dash — i — abunda	63 66 iculite, mi inite not detect int, xxxx =	ed,
0-43 3-56	8.4 13.3 7.9	2.6 2.7 4.4 2.2	7A2	.14 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5					int. — in Reletive	aterstratifio emounts:	d fayer, Qtz blank = no	r. == quartz, t determine	KI. — Kaol d, dash — i — abunda	63 66 iculite, mi inite not detect int, xxxx =	ed,
0-43 3-56	8.4 13.3 7.9	2.6 2.7 4.4 2.2	7A2	.14 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5					int. — in Reletive	aterstratifio emounts:	d fayer, Qtz blank = no	r. == quartz, t determine	KI. — Kaol d, dash — i — abunda	63 66 iculite, mi inite not detect int, xxxx =	ed,
0-43 3-56	8.4 13.3 7.9	2.6 2.7 4.4 2.2	7A2	.14 .2 Clay Fract		7.8 10.8 5.2	19.1 28.9 15.5					int. — in Reletive	aterstratifio emounts:	d fayer, Qtz blank = no	r. == quartz, t determine	KI. — Kaol d, dash — i — abunda	63 66 iculite, mi inite not detect int, xxxx =	ed,

Soil Type: *Askew loam

Soil No.: D45Mi-O09
Location: Tunica County, Mississippi, SW 1/4, SE 1/4, Sec. 10 T 6S, R 11?

Collected by: R. W. Simonson, H. B. Vanderford, and C. B. Melton Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horizon and Beltsville Lab. No.

Ap 451398

0 to 5 inches. Dark grayish brown (10YR 4/2) fine sandy loam; weak fine granular structure; very friable; few fine roots; clear smooth boundary.

B21t 451399 5 to 11 inches. Dark brown (10YR 3/3) light silty clay; many fine and medium distinct strong brown (7.57R 5/6) mottles; strong fine and medium subangular blocky structure; firm;

plastic, sticky; peds covered with clay films; gradual smooth boundary.

IIB22t 451400 11 to 16 inches. Mottled dark brown (10YR 3/3) strong brown (7.5YR 5/6) and brown (10YR 5/3) sandy clay loam; moderate medium and coarse subangular blocky structure; friable to firm; slightly plastic; slightly sticky; clay films on most peds; few fine brown and black concretions; gradual smooth boundary.

IIB31 451401 16 to 23 inches. Mottled dark brown (lOYR 3/3), dark grayish brown (lOYR 4/2) strong brown (7.5YR 5/6) and grayish brown (2.5Y 5/2) light sandy clay loam; weak medium and coarse subangular blocky structure; friable; slightly plastic; patchy clay films on peds; few fine brown and black concretions; gradual smooth boundary.

IIB32g 451402 23 to 30 inches. Grayish brown (2.5Y 5/2) heavy sandy loam; many fine and medium faint mottles of dark grayish brown (10YR 4/2) and distinct strong brown (7.5YR 5/6) mottles; weak, medium and coarse subangular blocky structure; friable; patchy clay films on peds; few fine brown and black concretions; clear smooth boundary.

IIIC1

30 to 43 inches. Dark gray (10YR 4/1) clay; weak medium and coarse subangular blocky

IVC2 451404 43 to 56 inches. Mottled brown (10YR 4/3) strong brown (7.5YR 5/6) and grayish brown (10YR 5/2) heavy sandy loam; structureless; friable.

U. S. DEPARTMENT OF AGRICL .FURE SOIL CONȘERVATION SERVICE

SOIL *Askew loam SOR Nos. DA5-Mi-Olo LOCATION Tunios County, Mississippi

SOIL SURVEY LABORATORY Bettsville, Maryland LAB. Nos. 451405 - 451411

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		1010	Total		ſ			Sand	e eno perte	100		i	I .	392	Coer	so fragmer	ets 3BI
Depth (In.)	Hortzon	Send (2-0.05)	ŞIII	Cley (= 0.002)	Very coerse (2-1)	Coerse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1	Very fine (0.1–0.05)		let. III	int, II (0.2-0.02)	(2-0.1)	Cen	2A2 >= 2	2 - 19	19-76 L of
		_	0.502)	! '	'	Pel	of -C 2	· ••• ——		' '	V.1001.)	·			Pct.		6mm
0-5	Ap		45.9	9.3	0.1	0.7	0.5	0.8	42.7								
	B21t		45.5	25.4	-	0.3	0.2	0.3	28.3								
10-14	B22t	L		25.8		0.2	0.2	1.6	26.3				L				<u> </u>
14-22	IIB3g	I	44.4	24.2	-	0.2	0.2	0.5	30.5	I	l		1				i !
	IIClg		52.6	18.4	0.1	0.2	0.2	1,1	27.4		l						
32-42	1102g	L	57.2	15.9	0.1	0.3	0.2	1.6	24.7			L .			L		لـــــــا
12-AU	TTCZE		ے فرا	ነ ጊሌ_	L	_ <u>0.8</u> _	0.3	0.9	15.4	L		[,				

Soil Type: *Askew loam

Soil No.: D45Mi-Olo

Soil No.: D45Mi-Olo

Location: Tunios County, Mississippi, near center of quarter section, 10 rods north of gravelled road.

NE 1/4, Sw 1/4, Sec. 22, T 75, R 12W.

Collected by: R. W. Simonson, H. B. Vanderford, and C. B. Melton

Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horizon and Beltsville Lab. No.

0 to 5 inches. Dark brown (10YR 3/3) fine sandy losm; weak, fine granular structure; with Ap 451405 thin, weak, coarse platy structure at bottom of horizon (plow layer); friable; abrupt smooth boundary.

5 to 10 inches. Dark brown (10TR 3/3) silty clay loam; common fine faint dark yellowish brown (10TR 4/4) and few fine distinct grayish brown (10TR 5/2) mottles; moderate, fine B21t 451406 and medium subangular blocky structure; friable to firm; slightly plastic, slightly sticky; clay films on most of peds; gradual smooth boundary.

10 to 14 inches. Brown (10YR 4/3) light silty clay loam; many fine faint dark yellowish brown (10YR 4/4) and many fine distinct grayish brown (10YR 5/2) mottles; weak medium B22t 451407 subangular blocky structure; friable; patchy clay films on peds; clear smooth boundary.

14 to 22 inches. Grayish brown (10YR 5/2) light sandy clay loam; many fine distinct brown (10YR 4/3) and dark yellowish brown (10YR 4/4) mottles; weak, coarse subangular IIB3g 451408 blocky structure; friable; few clay films in pores; gradual smooth boundary.

22 to 32 inches. Grayish brown (10YR 5/2) fine sandy loss with many fine distinct dark yellowish brown (10YR 4/4) mottles; structureless to weak, coarse subangular blocky IIClg 451409 structure; very friable; few fine dark brown concretions; gradual smooth boundary.

IIC2g 32 to 42 inches. Light brownish gray (LOYR 6/2) very fine sandy loam; common fine distinct yellowish brown (10TR 5/6) mottles; structureless; single grain; very friable; few fine brown, black concretions; diffuse smooth boundary. 451410

IIC3g 42 to 60 inches. Light brownish gray (10YR 6/2) very fine sandy losm with few fine distinct yellowish brown (10YR 5/6) mottles; structureless; single grain; very friable; few fine 451411 brown, black concretions.

silt loam

SOIL TYPE Atwood LOCATION Pontotoc County, Mississippi

SOIL NOS. S61Miss-58-1 LAB. NOS. 15186-15192

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DEPTH INCHES	HORIZON	VERY COARSE	COARSE	MEDIUM	FINE	VERY FINE		,			2A2	TEXTURAL CLASS
		\$AND 2-1	\$AND 1-0,5	\$AND 0,5-0.25	SAND 0. 25-0. 10	SAND 0.1G-0.05	SILT 0.05-0.002	CLAY < 0.002	0,2-0.02	202-20 32) 2	
0-6	Αp	0.5a	3.3	2.0	1.7	1.3	76.0	15.2	43.0	35.0	-	sil
6-11 11-23	Bl Bal+	0.5a	2.3	1.6 1.4	1.3	0.9	68.7 63.8	24.7	29.0	41.1		sil
23-37		0.0a	3.9	2.2	1.9	0.8 1.3	60.3	29.3 29.7			-	sicl
	IIB23		6.6	3.2	2.8	1.7	52.4	31.9		30.6	_	sicl sicl
	IIB23		3.6	3.7	3.2	1.8	46.1	34.1	20.8	28.5		sicl/cl
60-75	IIB24t	1.9a	8.0	3.6	3.1	1.9	48.3	33.2	23.1	28.4	_	sicl
-		·			-							
Hq		Orga	nic M	tter.	*********	Bul	k Densi	: Ե y		MOIST	URE TE	· · · · · · · · · · · · · · · · · · ·
8Cla	8Clc	6Ala	6Bla						.	4В1ь	4C1	4B2
H ₂ O	KCT	0.C.	N	C\N		l Moist	30	cm.	A.D.	1/3 ATMOS. Pieces	1/3-to	ATMOS. Sieved
t:1	1;1	%	%		4194 % М.	4Ala g/cc	% М.	ALC g/cc	4AIb g/cc	Pieces	in/in	Sieved
6.8	6.0		0.072	10	16.7	1.45	23.8	1.42	1.46	21.3	.22	5.7
6.0	5.2	0.32	0.055	6				•				9.2
5• <u>7</u>	4.8	0.17	0.046		19.2	1.57	24.2	1.53	1.64	24.4	.2¢	11.1
4.7 4.8	3.7		0.041		20.1	1.56	24.9	1.52	1.62	25.1	.22	10.8
4.8 4.8	3.7 3.7	0.11			18.3	1.62	21.0	1.58	1.66	20.9	.15	11.3
4.7	3.8	0.09					į	į		Ī		12.3 12.6
. • •	٠.٠	0.07										12.0
**************************************	43411013314143331	EXTRAC	TABLE	CATIONS			5C1	5 A3a	503	Sum	8D3	6Cla
CATION		Ext.	Bases		6Ша	602a	Base	Sum	Base	Ext.		Free
EXCHANGE CAPACITY	Co	Ma	Na	К	н	Al.	Sat. %	Ext.	Sat. 9	Bases	Ca/Mg	Iron
NH ₁ OAC		602b	6P2a	602a	_		NH) CAC Exch	Octions	Sum Cat	and Al		(Fe ₂ 03)
6.3	6.0	0.8	~	0.0	3.0			10.0	_			
2.3	0.0	0.0] <0.1	0,2	3.2	-	111	10.2	69	7.0	Į,	1.5

Soil Type: Atwood silt loam Soil Nos.: ASIMiss-58-1

Vegetation and Use: Alfalfa hay.
Slope and Land Form: Nearly level (2 percent slope).
Drainage and Permeability: Well drained. Rumoff medium to rapid and internal drainage medium. Permeability is moderate.

Farent Material: Thin loss over Coastal Flain.
Collected by: J. S. Allen and Dean C. McMartry, May 18, 1961.
Described by: E. A. Ferry and R. C. Carter, May 18, 1961.

Horizon and Lincoln Lab. No.

Ap 0 to 6 inches. Dark brown to brown (7.5YR 3/2 and 4/4) silt losm; weak, fine and medium granular structure; friable; common fine roots; few worm casts; clear, smooth boundary.

M 6 to 11 inches. Bark reddish brown (5YR 3/4) heavy silt losm; weak, fine and medium subangular blocky structure; friable; few fine roots; few worm casts; some mixing of Ap material in root and worm holes; clear, smooth boundary.

B21t 11 to 23 inches. Dark reddish brown (5YR 3/4) silty clay losm; moderate, fine and medium subangular blocky structure; friable; slightly plastic; few fine roots; few fine black concretions and fine and medium coatings; gradual, smooth boundary.

B22t 23 to 37 inches. Dark reddish brown (5YR 3/4) silty clay loam; moderate, medium and coarse subangular 15189 blocky structure; friable; slightly plastic to plastic; few fine roots; common fine to coarse black coarse ings and common, fine, black concretions; patchy clay films on peds and in cracks; gradual, smooth boundary.

37 to 49 inches. Dark reddish brown (2.5YR 3/4) clay loam; moderate, medium and coarse subangular blocky structure; friable; slightly plastic to plastic; few fine roots; many fine to coarse black coatings and many fine black concretions; clay films on ped faces and in cracks; gradual, smooth boundary.

:	SOIL	SUR	VEY	LAB	ORA	TORY	' Lin	coln, N	ebr.	. **** * * * * * * * * * * * * * * * *		August	_1962
\$	SOIL	TYPI		rood Lt loar		L	OCAT	ION .Ps	ntotoc	Coun	ty, Mie	81881	221
	so	IL NOS	•	S61M1	вз - 58-2	2		LAB. I	NOS.	1519	3-15 19 8	3	
	DEPTH INCHES	HORIZON	VERY COARSE SAND 2-1	COARSE SAND 1-0.5	MEDIUM SAND	CLE-SIZ FINE SAND 0.25-0.10	VERY FINE SAND	311CN (in SILT 0.05-0.002	CLAY		3 <u>A1</u> 062-0002	2A2 > 2	TEXTURAL CLASS
	0-6 6-18 18-31	AD B21t B22t	0.3 <0.1 0.2a	3.8 1.9 3.9	3.8 1.5 3.1	3.5 1.4 3.1	1.7 0.7 1.4	70.9 60.5 57.0	16.0 34.0 31.3	26.2	35.5	-	sil sicl sicl

Soil Type: Atwood silt losm

Soil Type: Atwood silt loam

Soil Nos.: SSIMEs-58-2

Location: Pointotoc County, Mississippi, 22 miles south of Fontotoc on State Righway 15 and 1/4 mile west on gravel road. SM1/4 NEL/4, Sec. 17, ThoS, RGE.

Vegetation and Use: Alfalfa for hay.

Shope and Land Form: Nearly level (2 percent slope).

Rainage and Fermeability: Well drained - rumoff medium to rapid and internal drainage medium. Permeability is

moderate.

Parent Material: Thin loss over Coastal Flain.
Collected by: J. S. Allen and Dean C. McMartry, Jr., May 18, 1961.
Described by: E. A. Perry and R. C. Carter, May 18, 1961.

Horizon and Mancoln Tab. No.

Ap 15193

0 to 6 inches. Dark brown to brown $(7.5 \text{YR } 3/2 \text{ and } 4/4) \text{ silt loam; weak, fine and medium granular structure; friable; common fine roots; few worm casts; some mixing of material from B horizon in worm and root$ holes; abrupt, smooth boundary.

B21t 15194

6 to 18 inches. Dark reddish brown (5YR 3/4) silty clay leam; moderate, fine and medium subangular blocky structure; friable; slightly plastic; few fine roots; few fine black concretions; few old root channels filled with material from Ap horizon; patchy clay films on peds and in root channels; gradual, smooth

boundary.

B22t 18 to 31 inches. Dark reddish brown (2.5YR 3/4) silty clay loam; moderate, medium and coarse subangular 15105 and angular blocky structure: friable: slightly plastic to plastic: few fine roots: many fine to coarse

> black coatings and many fine black concretions; clay films on peds and in cracks; few old root channels and wormholes filled with material from Ap horizon; gradual, smooth boundary.

31 to 45 inches. Dark reddish brown (2.5YR 3/4) clay losm; moderate, medium and coarse subangular and IIB23t angular blocky structure; friable; slightly plastic to plastic; few fine roots; common fine to coarse black coatings and common fine black concretions; clay films on ped faces and in cracks; few root 15196 channels filled with material from horizon above; gradual, smooth boundary.

IIB23t 45 to 57 inches. Same as horizon above. Horizon divided for characterization. 15197

TTPOL+ 57 to 79 inches. Dark red (10R 3/6) clay loam; moderate, medium and coarse subangular and angular 15198 blocky structure; friable; slightly plastic; few fine black coatings and concretions; patchy clay films on ped faces and in cracks.

Remarks: The B22t and IIB23t horizons were sampled for the Bureau of Public Roads. Colors given are for moist soil.

Mineralogy (Method 7B): Quarts and feldspar dominate the very fine sands of the coastal plain sediments and the losss mantle. The quartz to feldspar ratio is higher and kyanite is present in the coastal plain sediments. The quantity of tournaline, pyroxene, and plant opal is higher in the loss. Plant opal is virtually absent in the coastal plain sediments.

SOIL SURVEY LABORATORY Beltsville, Maryland LAB. Nos. D44-M1-O07 LOCATION Tallahatchie County, Mississippi

LAB. Nos. D4392 - D4396

		1816							s and parti			1						
			Total		Ь.,			Sand		SII	ŧ				382		rse fragme	nts 3B
Depth	Honzon	Sand	SIN	Clay	Very	Coarse	Medium	Fine	Very fine		Int. III	Int. 🎞				2A2 >- 2	2 - 19	19-7
(in.)		(2-0.05)	(0.05 <u>–</u> 0.002)	(= 0.002)	(2-1)	(1-0.5)	(0.5-0.25)	(0.25-0.1)	(0.1-0.05)	0.05-0.02	(0 02-	(0.2-0.02)	(2-0.1)		Cm	'	1	I
		-4	0.002)	l 	(==+)		l t.of≪:2:		l		0.002)					Pct.		t. of 76mm
0-4	Αp	59.5	27.6	12.9	0.1	0.3	2.7	26.4	30.0				29.5					
4-8	B21t	46.1	28.6	25.3	-	0.2	3.0	20.7	22.2				23.9					
8-14	B22t	46.5	24.8	28.7		0.2	3.1	22.4	20.8			_	25.7		ļ	<u> </u>		L
14-20	B3t	53.6	21.4	25.0	-	0.4	4.4	30.0	18.8				34.8					
20-26 26-36	C1	70.9	13.8	15.3	-	0.7	7.8	47.4	15.6				55.3					
<u>20-36</u> 36-60	IIC2	89.1_ 68.0	23.0	5.2 9.0		0.9	1.0	65.8 25.2	12.6 41.7				76.5 26.3		-	-	_	
30-00	1103	00.0	25.0	9.0		0,1	1.0	27.2	41.1				20,3					
								Bulk densij				Vater conte		1			pH	
	6A3a							<u> </u>	i 	4D1		1	i .	ł	4C1	 -		1
(in.)	Organic	Nitrogen	C/N		Carbonate	Ext. iron		4Ale	4A1h			481c	482				8Cic	8C1a
(III.)	Matter				as CaCO ₃	RS PO		⅓ ber	Oven dry	COLE		¾ bar	15 bar		WRD		(1:1)	(1.1)
	Pct.	Pct.			Pet	Pct.	£/cc	g/cc	g/cc		Pct.	Pct.	Pct.		in/in		KCI	H ₂ O
0~4	0.78											_						6.2
4-8	0.82																	5.4
8-14	0.74																	5,1
14-20	0.48																	5.2
20-28 28-36	0.28																	5.3
20-30 36-60	-		-			_	 	-						 			 	5.6
20-00																		7.0
	L		L	Ι	L. I		L.	I	↓			L,		I	<u> </u>	l	<u> </u>	L

Soil Type: Bosket fine sandy loam
Soil No.: Dabli-007
Location: Tallahatchie County, Mississippi, NE 1/4, R 1E
Collected by: R. W. Simonson, H. B. Vanderford, and C. B. Melton
Described by: R. C. Carter, W. A. Cole and Frank Scott

Horison and Beltsville LAD. No.

0 to 4 inches. Dark grayish brown (10YR 4/2) fine sandy losm; weak, fine granular Ap D4392 structure; very friable; abrupt smooth boundary.

B21t 4 to 8 inches. Dark brown (10YR 3/3) clay losm; interior of peds brown (10YR 4/3) moderate, D4393 medium subengular blocky structure; friable to firm; continuous clay films on peds; gradual smooth boundary.

8 to 14 inches. Variegated dark brown (10TR 3/3) and brown (10TR 4/3) sandy clay loam; moderate, medium to coarse subangular blocky structure; friable to firm; clay films on most B22t D4394 peds; gradual smooth boundary.

B3t D4395 14 to 20 inches. Brown (10YR 4/3) loam; weak to moderate medium subangular blocky structure; friable; patchy clay films on peds; gradual smooth boundary.

C1 D4396 20 to 28 inches. Yellowish brown (10YR 5/6) sandy losm; structureless; single grain; very friable; gradual smooth boundary.

IIC2 28 to 36 inches. Yellowish brown (10YR 5/6) loamy sand; single grain; very friable; P4397 diffuse smooth boundary.

IIC3 36 to 60 inches. Yellowish brown (10YR 5/6) lossy fine sand; single grain; very friable. D4398

OIL TYPE **Brookhaven LOCATION Lincoln County, Mississippi silt loam

SOIL NOS. S59Miss-43-3 LAB. NOS. 9902-9910

		J.Bl4	L	PARTI	CL E-SIZ	E DISTRIB	UTION (in	mm.) (pe	r cent)	<u>341,</u>	*****	
DEPTH INCHES	HORIZON	VERY COARSE SAND	COARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY			2A2 > 2	TEXTURA CLASS
		2-1	1.0.5	0.5-0.25	Q. 25-Q. 10	0.10-0.05	0.05-0.002	< 0.002	0,2-0.02	0.02 -0.00 2		
0-1	Al.	0.4a	1.4a	2.7a	4.40	2.8a	£1.3	7.0	47.7	38.4	-	si.
1-44	B&A		1.la	2.5a	3.8a	2.0a	81.4	9.0	43.9	41.2	-	si
43-6	Bl		0.6a	1.4a	2.2a	1.4a	71.3	23.0	34.3	39.4	_	sil
6-10	1921	<0.1		1.0a	1.5a	1.la	63.8	32.2	28.2	37.4	_	sicl
10-13	B22		0.5b	1.1b	1.6ъ	1.3b	64.7	30.7	28.6	38.2	-	sicl
13-17	B23	<0.1	0.66	1.1b	1.9b	1.45	68.4	26.6	30.1	40.6	-	511/61
17-28	See		0.6c	1.6c	2.7c	1.8c	65.7	27.5	31.7	37.1	-	sicl/a
28-42	Desc.		1.7c	3.9c	6.8c	3.9c	61.8	21.6	35.2	33.7		811
42-51			1.60	4.8c	8.2c	5.0c	58.1	22.0	36.7	30.3	_	sil
42-71	1	0.50	1.00			· ·			1.7	50.5		
99401 698011 4014441	»Hq	h 000100000 11110100	QRG/	MIC MA	TTER	Free	BU	LK DEN	BITY	MOIST	URE TE	NSIONS
8Cla	1		6Ale	6Bla		Iron	14Ala	4Alc	4ATh	4194	4 B 3	4B2
	1,5	1:16	ORGANIC CARBON	NITRO-	C/N	Fe ₂ 0 ₃ %	Field State	30-cm	D. D.	Field State	30-cm	15 ATMOS
1:1	1		%	*		601a	g/cc	g/cc	g/00	3	46	5
					~	0.8	 		- 14 - 4	 .		3.9
5.1	•	1	1.68	0.076			1.38	1.38	1.384	18	26	3.5
5.0	1		0.60	0.037		0.9	ىر.ي	1.30	10,000			9.3
5.0			0.49	0.046		2.2	1.35	1.32	1.41	18	28	13.3
5.1			0.40	0.052		3.2	1.37	1.52	****	100		13.1
5.0			0.26	0.042	T .	3.2			•			13.6
5.3	Ī	[0.16	0.035		3.0	1.51	1.48	1.55	20	27	11.6
5.4	Ī		0.09	0.028		2.5	1.71	1.64	1.72	12	19	9.4
5.5	1		0.06			2.0	1.75	1.66	1.75	9	18	9.4
5.5		,	0.05			2.2	1.17	1.00	4017			7.7
5Ala	i spinistinari erretate:	EXTRAC	TABLE	CATIONS		BASE	Base	Sum	Sum	Ca/14g		
-	6 N2 b	6026	бШа	612a	602a	SAT.	Set. %	Ext.	Ext.	ł		
CATION XCHANGE APACITY	Co	Ma	н	No	K	NH ₁ Ac	1	Baces	Cat-			
NELAC	<u> </u>	į ·		1	Į.	EXCH.	Cations	l.	ions			
-	i	milliequiv	olente per	100g. soi	,)	5C)	503	.5Bla.	.543a.	L_803_		
6.8	1.5	0.4	6.1	<0.1	0.2	31	26	2.1	8.2	†		1
4.3	0.1	0.4	4.8	<0.1	0.1	14	4	0.2	5.0	[1
8.9	1.1	0.9	8.9	0.1	0.2	26	20	2.3	11.2			
12.5	1.9	2.0	9.8	<0.1	0.3	34	30	4.2	14.0	1.0		1
12.1	0.6	2.2	12.2	0.1	0.2	26	20	3.1	15.3	1		1
11.8	0.1	2.4	12.2	0.1	0.2	24	19	2.8	15.0	1		ł
12.3	<0.1	3.2	10.6	0.3	0.2	30	26	3.7	14.3	1		1
9.4		3.6	6.5		0.1	42	38 46	4.0	10.5]	l	1
8.6	<0.1	4.0	5.2	0.3	0.1	51	46	4.4	9.6	Į	1	1
						1			1	† †		
a. 9	race 1	ight a	nd dar	k brov	n conc	r. (Fe?)	ł			İ	[
ъ. С	commed	Light	brown	coner.	(Fe?)	trace	dark br	pwn co	per. (Fe?)		[
c. I	lew lis	ht bro	m con	er. (l	(e?); t	race da	rk brown	conci	, (Fe?	D	1	ŧ
ā.	Averag	e of 2	clode			ľ				[ŧ

Soil Type: "Brookhaven silt loam Soil Nos: 859Miss-43-3

Ecoation: Education County, Mississippi, southeast of Brookhaven. 217 feest west and 100 feet south of northeast corner of NW 1/4 NE 1/4, Sec. 11, Ton, RSB. Aerial photo CJI-4K-38.

Vegetation and Use: Mixed pine and hardwoods with pinehill bluestem. Been in timber for a long period of years. Slope and Land Form: Nearly level (1 percent) broad ridge in nearly level to sloping topography.

Drainage and Permeability: Somewhat poorly drained. Permeability is moderate in the horizons above the fraginan and slow in that layer.

Parent Material: Thin loss and Coastal Plain material. Collected by: J. S. Allen, January 27, 1959.
Described by: R. C. Carter, January 27, 1959.

Horizon and Lincoln Fab. No.

to 0 inch. Mixed hardwood leaves, pine needles and bluestem grass.

0 to 1 inch. Very dark gray (5Y 3/1) to gray (5Y 5/1) silt loam with weak medium granular structure; 9902 very friable; numerous fine grass roots and some larger roots; boundary clear and smooth.

B&A 1 to 42 inches. Pale clive (5Y 6/3) silt losm with weak fine subangular blocky structure to structureless; 9903 . very friable; numerous grass roots and some fine tree roots; boundary clear and smooth.

4½ to 6 inches. Mixed strong brown (7.5YR 5/6) and olive (5Y 5/3) silt loam with weak fine subangular 9904 blocky structure; friable, slightly sticky; numerous grass roots and some fine tree roots; boundary clear and smooth.

6 to 10 inches. Strong brown (7.5YR 5/6) heavy silt loam with weak fine subangular blocky structure with few thin clay films on ped faces; friable, slightly sticky; many grass roots and few fine tree roots; B21 9905 boundary gradual and wavy.

10 to 13 inches. Strong brown (7.5 YR 5/6) silt loam with few fine faint mottles of light yellowish brown (10 YR 6/4); weak fine and medium subangular blocky structure with few thin clay films on peds; friable, slightly sticky; few fine roots; few fine soft iron concretions; boundary clear and smooth. R22 9906

13 to 17 inches. Yellowish brown (10YR 5/6) silt loam with common fine faint mottles of very pale brown (10YR 7/3); weak fine and medium subangular blocky structure; friable, slightly sticky; few roots; many fine soft iron concretions; few fine pores; boundary clear and smooth. B23 9907

Mottled dark brown (7.5YR 4/4) to strong brown (7.5YR 5/6) brown (10YR 5/3) and very B' 24tx 17 to 28 inches. pale brown (10YR 7/3) heavy silt loam; weak thick platy peds breaking into moderate medium subangular blocky structure with few clay films on peds; firm, slightly sticky; many iron-enriched spots; very pale brown (10YR 7/3) in cracks and coatings around ped faces; many pores; boundary arbitrary. This & A'2x 9908 horizon wet and free moisture seeped out along face of pit.

28 to 42 inches. Mottled yellowish brown (10YR 5/6) light yellowish brown (10YR 6/4) and light brownish IIB'25tx gray (2.5Y 6/2) heavy silt loam; weak thick platy peds breaking down to weak medium angular blocky struc-9909 ture with few thin clay films on peds; firm; no roots; many incipient iron concretions; few fine manganese concretions; light brownish gray (2.5Y 6/2) silt coatings on ped faces and in cracks; many fine pores; boundary gradual and wavy.

42 to 51 inches. Strong brown (7.5YR 5/6) to yellowish brown (10YR 5/6) milty clay losm with many fine IIB'26tx 9910 faint mottles of light gray (10YR 7/2); structureless; few thin clay films on faces; firm to extremely firm; few manganese concretions; many incipient iron concretions; light gray (10YR 7/2) coatings around peds and in cracks; many fine pores.

Remarks: Colors are for moist soil.

Stereoscopic microscope observations:

R21: A very few scattered patches of clay film on void walls; no clay films observed on ped surfaces.

	SOIL	SURVEY	LABORATO	RY Lincoln,	Webr.	July	1959	
	SOIL	TYPE	*Brooksawn silt loam	LOCATION.	<u>[incol</u>	n County, Mis	eissippi	
		soli nos.	859Miss-43-4	LAB.	NOS	9911-9920		
a.	**************************************	Minimum Pi	<u>- PAPUCI</u> ,	-82F_DISTRIBUTION	in ma.) four	ceut) 2A1	isterressetti iga teliyiyle issuuten .	
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Soil Type: "Brookhaven silt loam Soil Nos.: SSOMiss-43-4

Soil Nos.: 559Mas-43-4
Location: Lincoln County, Mississippi, southeast of Brookhaven. 412 feet west and 246 feet south of northeast corner SW 1/4, Sec. 29, T7N, RSE. Photo No. CJI-17K-40.

Vegetation and Use: Mixed pine and hardwoods approximately 25 years old or more.

Slope and land Form: Nearly level (2 percent) broad ridge in nearly level to sloping topography.

Prainage and Permeability: Stmewhat poorly drained. Permeability is moderate in the horizons above the fraginan and slow in that layer.

Parent Material: Thin bess and Coastal Flain material.
Collected by: J. S. Allen, January 27, 1959.
Described by: R. C. Carter, January 27, 1959.

Horizon and Lincoln Jeh. No.

M to 0 inch. Mixed hardwood leaves and pine needles

O to 2 inches. Black (10YR 2/1) to very dark gray (5Y 3/1) silt loam with weak medium granular structure; 0011

very friable; numerous fine roots; boundary clear and smooth.

2 to 6 inches. Gray (5Y 6/1) to dark gray (5Y 4/1) silt loam; structureless to weak granular structure; 9912

very friable; numerous fine roots; boundary clear and smooth.

6 to 9 inches. Mixed very pale brown (10YR 7/4) and yellowish red (5YR 5/6) silt loam with weak fine subappular blocky structure; mois, friable, and wet, slightly sticky; numerous fine roots; boundary . . 2013

clear and smooth.

9 to 13 inches. Yellowish red (5YR 4/6) heavy silt loam to silty clay loam with weak fine and medium subangular blocky structure; friable, slightly sticky; numerous fine roots; boundary gradual and wavy. 9914

13 to 17 inches. Mixed strong brown (7.5YR 5/6) to yellowish red (5YR 5/6) and brownish yellow (10YR 6/6) heavy silt losm; weak fine and medium subangular blocky structure with few thin clay films on peds; friable, slightly sticky, numerous fine roots; few small chert pebbles and quartz gravel; boundary clear B22 9915

and smooth.

17 to 23 inches. Strong brown (7.5 % R 5/6) silt loam with many fine distinct mottles of yellowish red (5 % R 4/6) and very pale brown (10 \mathbb{R} 7/4); weak fine and medium subangular blocky structure with few B'23tx & A'2x clay films on peds; friable, slightly sticky; few roots; some iron-enriched spots; many voids. Discontinuous layer (pocket) from 20 to 23 inches of mottled strong brown (7.5%R 5/6) and light gray (5% 9916 7/2) heavy silt losm; weak thick platy structure which breaks into weak fine and medium subangular blocky structure with few clay films on peds; friable, slightly sticky; few roots; many pores; many iron concretions; boundary gradual and irregular. (20-to 23-inch pocket sampled separately - ISL 9917.)

B' 24tx 9918

7

23 to 34 inches. Nottled strong brown (7.5YR 5/6) and light gray (5Y 7/1) silt loam; breaks out in very thick plates and then into weak medium angular blocky structure with many thin clay films on peds; extremely firm; few roots; light gray (5Y 7/1) silt coatings in cracks and on ped faces; some iron-enriched

34 to 48 inches. Mottled strong brown (7.5YR 5/6) yellow (10YR 7/8) white (10YR 8/1) and yellowish red (5YR 4/6) silty clay loam; breaks into angular blocky peds with many clay skins on peds; extremely hard, extremely firm; no roots; many iron-enriched spots; some pores; white silt in crack and channels; boundary IIB'25tx 9919 clear and wavy.

IIB'26tx 48 to 54 inches. Mottled strong brown (7.5YR 5/6) yellow (loyR 7/6) and red (2.5YR 4/8) silty clay loam; structureless, breaking into thick platy blocks with many clay films on faces; extremely hard, extremely 9920 firm; no roots; many iron-enriched spots; many voids; white silt in crack.

Remarks: Colors are of moist soil.

Stereoscopic microscope observations:

B21: Fed and large noncapillary void walls slightly more reflective and one-half color chip darker in value, probably indicating very thin clay films.

B22: A very few thin and patchy clay films. (Probably fewer than in the B21 horizon.)

	SOIL	TYP	E Bud sil	e t loam		.	OCAT	10N	Tippah	Count	, Mis	118811	p1	-
	s	OIL NO	S	_S61M1	88-70-	3	Aprile admi	LAB.	NOS.	152	16-152	<u> </u>		••
			. IBla		PARTI	CLE-SIZ	E DISTRIE	SUTION (In	· ::::::::::::::::::::::::::::::::::::	r cent)	3AI		· · ·	" .
	DEPTH	HORIZO	VERY COARSE SAND	COARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY		!	> 2	TEXTURAL	•
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Soil Type: Bude silt loam
Soil Nos.: S51Miss-70-3
Location: Tippah County, Mississippi, lymiles north of Falkner on State Highway 15 and 300 feet east of highway.

SEL/4 SML/4, Sec. 31, T2S, RWE.

Vegetation and Land Use: Rerandagrass pasture.

Slope and land Form: Nearly level (1 percent slope).

Brainage and Permeability: Somewhat poorly drained with slow to medium runoff and slow internal drainage. Perme-

ability is moderate in the upper part of the solum and slow in the lower part.

Parent Material: Thin loss over Coastal Plain.

Collected by: J. S. Allen and Dean C. McMartry, Jr., May 19, 1961. Described by: W. I. Smith and R. C. Carter, May 19, 1961.

Lincoln Lab. No.

0 to 5 inches. Mottled brown to dark brown (10YR 4/3) pale brown (10YR 6/3) and dark grayish brown (10YR 4/2) silt loam; mottles are many, fine, faint; weak, fine and medium granular structure; friable; common 15216 fine roots; few fine black and brown concretions; brown stains around roots; few worm and root channels

filled with material from B horison; clear, smooth boundary.

5 to 13 inches. Yellowish brown (10YR 5/6) silt loam; weak, fine and medium subangular blocky structure; 121 frishle; slightly plastic; few fine roots; few fine, soft brown and black concretions; few root and worm channels filled with material from Ap horizon; clear, smooth boundary. 15217

13 to 19 inches. Mottled yellowish brown (10YR 5/6) strong brown (7.5YR 5/6) pale brown (10YR 6/3) and light yellowish brown (10YR 6/4) heavy silt logs; mottles are many, fine, faint and distinct; weak, fine and medium subangular blocky structure; friable; slightly plastic; few fine roots; few fine soft brown and block constitutions. 100 15218 and black concretions; clear, , smooth boundary.

19 to 23 inches. Mottled yellowish brown (10YR 5/6) light yellowish brown (2.5Y 6/4) and light brownish gray (2.5Y 6/2) silt loam; mottles are many, fine, faint and distinct; weak, fine and medium subangular blocky structure; friable; few fine roots; common fine brown and black concretions; common medium black coatings; common fine voids; clear smooth boundary. A'21x and B'21tx 15910

23 to 27 inches. Mottled light clive brown (2.5Y 5/4) light brownish gray (2.5Y 6/2) and light yellowish brown (2.5Y 6/4) silt loam; mottles are many, fine, faint and distinct; weak, fine and medium subangular blocky structure; friable; few fine roots; many fine brown and black concretions; many fine voids; clear, smooth boundary. 4100and B'22tx 15220

27 to 29 inches. Mottled light gray to gray (5Y 6/1) yellowish brown (10YR 5/6) and light gray (10YR 7/1) heavy silt losm; mottles are many fine faint and distinct; moderate fine and medium subangular blocky struc-B'23tgx 15221 ture; friable; few fine roots; many fine brown and black concretions; many fine voids; peds covered with gray silt (10TR 7/1); clear smooth boundary.

IIB'24tgx 29 to 44 inches. Gray (5Y 5/1) silty clay loss with many fine, distinct strong brown (7.5YR 5/6) mottles; 15222 moderate, medium and coarse angular and subangular blocky structure; friable to firm; plastic; few fine roots; common fine soft brown and black concretions; patchy clay films in root channels and cracks; common vertical cracks up to 2 inches wide filled with gray (5Y 5/1) heavy silty clay loam; light gray (10YR 7/1) silt coatings on ped faces; gradual, smooth boundary.

IIB'25tx 44 to 57 inches. Mottled yellowish brown (10YR 5/6) light olive brown (2.5Y 5/4) and gray (10YR 5/1) clay losm; mottles are many, fine to coarse and distinct; moderate, coarse, angular blocky structure; friable to firm; slightly plastic; few fine roots; common fine, soft brown and black concretions; 15223 patchy clay films in cracks; common vertical cracks less than one inch wide filled with gray (5Y 5/1) heavy silty clay loam; gradual, smooth boundary.

57 to 63 inches. Mottled yellowish brown (10YR 5/6) strong brown (7.5YR 5/6) and gray (10YR 5/1) clay loam; mottles are many, fine to coarse, faint and distinct; weak to moderate coarse angular blocky structure; friable to firm; slightly plastic; common fine brown and black concretions; few cracks filled IIB'26tx 15224 with gray (5Y 5/1) material.

Remarks: The B22, A'22x and B'22tx, and IIB'24tgx horizons were sampled for the Bureau of Rublic Roads. Colors given are for moist soil.

Mineralogy (Method 7B): Quartz and feldspar dominate the very fine sands of the coastal plain sediments and the nemeralogy (period (B): quartz and relespar daminate the very time sends of the coastal plain sediments and the loss mantle. The quartz to feldspar ratio is higher and kyanite is present in the coastal plain sediments. The quantity of tournaline, pyroxene, and plant opal is higher in the loss. Flant opal is virtually absent in the coastal plain sediments. The IIB'24tgx horizon marks the upper limit of uncontaminated coastal plain material but the B'23tgx horizon appears to be a mixture of losss and coastal plain materials.

	SOU TYP	PMe	10	CATION 1	Minmah County	, Mississippi	
	301E 717	silt loam		• ∧ ; 1•(1⊒	The state of the s	g	999 14941 174
		••• a/33#	-70-4.	1.45	NOG 1500	E1 E091	
	SOIL N	108. Solmiss	#/Q=#	LAB.	NOS \$255	2-12621	
	***************************************	181a	PARTICLE-SIZE	omeromonium DISTRIBUTION G		3A1	
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Soil Type: Bude silt loam Soil Nos.: S61Miss-70-4

Location: Tippah County, Mississippi, 2½ miles southwest of Falkmer about 250 feet north of gravel road. SKI/4
SMI/4, Sec. 10, T38, R3E.

Vegetation and Land Use: Rermudagrass pasture.

vegetation and land use: sermunagrass pasture.

Slope and land Form: Hearly level (1 percent slope).

Brainage and Permeability: Smewhat poorly drained with slow to medium runoff and slow internal drainage. Permeability is moderate in the unner part of the solum and slow in the lower part.

Parent Material: Thinkess over Coastal Plain.

Collected by: J. S. Allen and Dean C. McMurtry, Jr., May 19, 1961. Described by: W. I. Smith and R. C. Carter, May 19, 1961.

Lime oln Lab. No.

Ap 15225

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O to 7 inches. Mottled dark grayish brown (10YR 4/2) brown (10YR 5/3) and pale brown (10YR 6/3) silt loss; mottles are many, fine, faint; weak, fine and medium granular structure; friable; few fine roots;

few fine black and brown concretions; brown stains around roots; clear, smooth boundary.

B21 15226

7 to 12 inches. Yellowish brown (10YR 5/4) silt loss; weak, fine and medium subangular blocky structure; friable; slightly plastic; few fine roots; few root and wormholes filled with material from Ap horizon;

few fine black and brown concretions; clear, smooth boundary.

1200 15227 12 to 20 inches. Nottled yellowish brown (10YR 5/6) light gray (10YR 7/1) and strong brown (7.5YR 5/6) heavy silt locm; mottles are many, fine and medium, faint and distinct; moderate, fine and medium subangular blocky structure; friable; slightly plastic; few fine roots; few fine, soft brown and black concretions; clear, smooth boundary.

A'2x 20 to 24 inches. Mottled pale olive (5Y 6/3) yellowish brown (10YR 5/6) and light brownish gray (2.5Y and B'2ltx 6/2) heavy silt loss; mottles are many, fine and medium distinct; weak, fine and medium subangular blocky

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voids; clear, smooth boundary.

B'22tgx 24 to 28 inches. Hight gray (10YR 7/1) heavy silt losm; many fine, distinct pale olive (5Y 6/3) and

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SOIL SURVEY LABORATORY Beltsville, Maryland

____ LAB. Nos. <u>52400 - 52404</u>

	l	1816						Size clas	s and portio	de diamete	r (mm) 3A:	<u> </u>						
		1020	Total					Sand		SH		Ì			382	Con	no fragme	ets 30
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0-4	Ap	-	85.8	10.6	0.4	0.6	of < 2 s	0.6	1.5	i	29.2	58.5				ra.	 -	emini
	BŽ1		78.8	18.8	0.2	0.8	0.4	0.4	0.6		41.0	38.6				1 -		
	B22		80.5	15.6		1.3	0.6	0.6	1.0	L	43.8	38.1		L.	l	-		
16-24	A '2x+B '	1xt	76.6	20.0	0.3	1,1	0.5	0.6	0.9	<u> </u>	40.9	36.9				-		
24-36	B'22xt		71.3	25.6	0.1	0.7	0.5	0.8	1.0		37.8	35.0				-		
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_	6Ala							Bulk densit	y	401	٧	fator conte	nt		4C1		pH	_
Depth	Organic	Nitrogen	C/N		Carbonate	Ext. iron	,	4A1e	4Alb	***		481c	482		***		8Clc	8C1
(in.)	cerbon		l [']		es CeCO ₃	as fo		35 ber	Owen dry	COLE		35 ber	15 ber		WRD		(1:1)	(1:1
								-73 CHI	Own dry			73 HW	13 005		lasi-		KCI	
0-4	Pet.	Pet.	ļ		Pct.	Pct.	2/ 00	g/00	8/cc		Pct.	Pet,	Pet.		in/in		NGI -	420
4-10	0.30								1	1								4.
10-16	0.05						<u> </u>	L	L	<u> </u>		L			<u> </u>	<u></u>	<u> </u>	4.6
16-24	0.11																	4.0
24-36																		4.
<u>. </u>	ľ	Extractat	le bases S	181z		6HLa	Ci	EC .	6 <u>6</u> 1a				tetios to cia		803		Base sat	uration
Depth	6N2d	502b	6P2a	6Q2a		Ext.	l		1				<u> </u>		1		5C3	5C1
(in.)	Ca .	Mg	Na	*	Sum	acidity	5A3a Sum cations		Ext. Al			CEC Sum	Ext. Iron	15-bar water	Ça/Mg		Sum	NH ₄ C
- (-				meq/100 g				-								Pet.	Pat
0-4	1.7	1.0	0.1	0.2		6.5	9.5			1				l			32	
4-10	2.3	1.5	0.2	0.1		9.0	13.1							l			31	
10-16	2.3	1.5	0.2	0.1		9.0	11.6						_				22	
10-16 16-24	2.3	1.5	0.2				13.1 11.6 16.1 21.0										36 50	
10-16 16-24	2.3 1.0 2.1	1.5 1.2 3.0	0.2 0.3 0.6	0.1		9.0 10.3	11.6 16.1								3000.01		36	
4-10 10-16 16-24 24-36	2.3 1.0 2.1	1.5 1.2 3.0	0.2 0.3 0.6	0.1		9.0 10.3	11.6 16.1								300.11		36	
10-16 16-24	2.3 1.0 2.1	1.5 1.2 3.0 5.8	0.2 0.3 0.6	0.1 0.1 0.1		9.0 10.3 10.6	11.6 16.1								,		36	
10-16 16-24 24-36	2.3 1.0 2.1	1.5 1.2 3.0 5.8	0.2 0.3 0.6	0.1 0.1 0.1	ion Analysis	9.0 10.3 10.6	11.6 16.1	Gibbeite							140. 14		36	
10-16 16-24 24-36	2.3 1.0 2.1 3.7	1.5 1.2 3.0 5.8	0.2 0.3 0.6 0.8	Clay Fract	ion Analysis	9.0 10.3 10.6	11.6 16.1 21.0			, .		Mr. — s	åge typer (Sin	nite, Chil.	chtorite. V	frit. — Verm	36 50	- #lic
10-16 16-24 24-36	2.3 1.0 2.1 3.7	1.5 1.2 3.0 5.8	0.2 0.3 0.6 0.8	Clay Fract	ion Analysis	9.0 10.3 10.6	11.6 16.1 21.0	Gibbatte							chlorite, V		36 50	- atic
10-16 16-24 24-36	2.3 1.0 2.1 3.7	1.5 1.2 3.0 5.8	0.2 0.3 0.6 0.8	Clay Fract	ion Analysis	9.0 10.3 10.6	11.6 16.1 21.0					Int. — i Relative	ntaratratific amounts:	d layer, Qt blank — no	z quartz, t determina	, KI, — Ka o ed, dash —	36 50 siculita, mi	ıd,
10-16 16-24 24-36	2.3 1.0 2.1 3.7	1.5 1.2 3.0 5.8	0.2 0.3 0.6 0.8	Clay Fract	ion Analysis	9.0 10.3 10.6	11.6 16.1 21.0					Int. — i Relative	ntaratratific amounts:	d layer, Qt blank — no	z quertz,	, KI, — Ka o ed, dash —	36 50 siculita, mi	ıd,
10-16 16-24 24-36	2.3 1.0 2.1 3.7	1.5 1.2 3.0 5.8	0.2 0.3 0.6 0.8	Clay Fract	ion Analysis	9.0 10.3 10.6	11.6 16.1 21.0					Int. — i Relative	ntaratratific amounts:	d layer, Qt blank — no	z quartz, t determina	, KI, — Ka o ed, dash —	36 50 siculita, mi	ıd,
10-16 16-24 24-36	2.3 1.0 2.1 3.7	1.5 1.2 3.0 5.8	0.2 0.3 0.6 0.8	Clay Fract	ion Analysis	9.0 10.3 10.6	11.6 16.1 21.0					Int. — i Relative	ntaratratific amounts:	d layer, Qt blank — no	z quartz, t determina	, KI, — Ka o ed, dash —	36 50 siculita, mi	ıd,
0-16 .6-24 .4-36	2.3 1.0 2.1 3.7	1.5 1.2 3.0 5.8	0.2 0.3 0.6 0.8	Clay Fract	ion Analysis	9.0 10.3 10.6	11.6 16.1 21.0				-	Int. — i Relative	ntaratratific amounts:	d layer, Qt blank — no	z quartz, t determina	, KI, — Ka o ed, dash —	36 50 siculita, mi	ıd,

Soil Type: Calloway silt loam

Soil No.: S52Miss-17-1

Location: De Soto County, Mississippi, 1 1/2 miles northwest of Cockrum, Mississippi Collected by and date: E. J. McMutt and A. H. Hasty, March 19, 1952

Horizon and Beltsville Lab. No.

O to 4 inches. Yellowish brown (10YR 5/4) friable moderate medium granular silt loam;

52400 very strongly acid.

B21 4 to 10 inches. Yellowish brown (10YR 5/8) friable moderate medium granular silt loam;

52401 very strongly acid.

10 to 16 inches. Light yellowish brown (10YR 6/4) friable weak fine blocky light silty B22

52402 clay loam; very strongly acid.

16 to 24 inches. Mottled brownish yellow (10YR 6/6), light gray (10YR 7/2) and very dark grayish brown (10YR 3/2), (very dark grayish brown comes from the soft concretions in A12x B'21xt

52403 horizon) firm to very firm medium blocky silty clay loam; very strongly acid.

24 to 36 inches. Brownish yellow (10YR 6/6) faintly mottled with medium areas of light gray (10YR 7/2) and very dark grayish brown (10YR 3/2) firm to very firm silty clay loam. B'22xt 52404

This layer is just a little less firm than layer above; very strongly acid.

Notes: Area appears to be a severely eroded stream terrace on which losss material has been blown.

SOIL SURVEY LABORATORY Lincoln, Nebr. July 1959

SOIL TYPE Calloway LOCATION Panola County, Mississippi silt loam

SOIL NOS. 559MISS-54-1 LAB. NOS. 9938-9944

M 0001 	## (***********************************		Bla	PARTI	CLE-SIZ	E DISTRIB	UTION (in	mm.) (pe	r cest)	<u>3</u> A		- -
DEPTH INCHES	HORIZON	SAND	SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY			> 2	TEXTURAL CLASS
		2-1	1-0.5	0.5-0.25	0.25-0.10	0.10-0.05	0.05-0.002	< 0.002		002-0002		
0-6	Apo	0.3a	0.4a	0.3a	0.5a	0.8a	87.4	10.3	45.7	42.7	-	si
6-11	Bl.	0.2ъ	0.66	0.40	0.65	0.7b	78.2	19.3		37.1	-	sil
11-16	B2	0.50	1.0b	0.60		1.0b	73.4	22.7	38.1	36.7	-	sil
16-29	See .	0.2b	0.7b	0.56	0.86	1.36	76.2	20.3	41.1	36.8	-	sil
29-39	Desc.	0.1b	0.4b	0.36	0.66	1.0b	77.3	20.3	39.5	39.1	-	811
39-50	B' 23ta	0.26	0.3b	0.25		0.80	80.0	18.1	41.4	39.8	-	sil
50-60	B'3tx	<0.1b	0.26	0.2b	0.46	0.76	81.8	16.7	42.3		-	sil
-						•		֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓]	† .		
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	ρH,	;	ORGA	NIC MA	TTER	Free	BU	LK DEN	STTY	MOIST	TURE TE	ensions

Soil Type: Calloway silt loam Soil Nos.: S59Miss-54-1

Location: Panola County, Mississippi on Judge Kyle farm 5 miles east of Batesville on Sardis Lake road. 1,320 feet west of half section line and 87 feet south of NE 1/4 SE 1/4, Sec. 19, TBS, R6W. Hooto NK-4H-137.

Vegetation and Use: Poor native pasture. Been in pasture 5 years or more.

Slope and land Form: Nearly level (1 percent) broad flat in nearly level to gently sloping terrace topography. Brainage and Permeability; Somewhat poorly drained. Permeability is moderate in the horizons above the fragipan and slow in that horizon.

Parent Material: Loess.
Collected by: J. S. Allen, January 29, 1959.
Described by: R. C. Carter, January 29, 1959.

Horizon and lincoln Isb. No.

O to 6 inches. Mottled gray (5Y 9/1) and very dark grayish brown (10YR 3/2) silt loam; mottles are many fine and distinct; weak thick platy structure breaking down into weak fine and coarse crumb; very friable; numerous fine grass roots; many fine manganese and iron concretions; boundary clear and smooth. **А**р 9938

Yellowish brown (10YR 5/6) silt loam with many fine faint mottles of dark yellowish TAT brown (10YR 4/4); week fine subangular blocky structure; friable, slightly sticky; much earthworm activity, and channels are filled with soil from Ap; many fine roots; many soft manganese and iron con-9939 cretions; boundary clear and smooth.

ll to 16 inches. Yellowish brown (10YR 5/6) heavy silt loam with many fine faint mottles of dark brown (10YR 4/3); weak fine subangular blocky structure; friable, slightly sticky; many fine roots; many soft 9910 iron and mangemese concretions: boundary abrunt and wavy.

16 to 29 inches. Mottled yellowish brown (10YR 5/6) and light olive gray (5Y 6/2) silt loam; mottles are many medium and distinct; yellowish red (5YR 5/6) spots around iron concretions; weak to moderate medium and coarse angular blocky structure; friable, slightly sticky; few roots; many soft manganese and iron concretions; many pores; light olive gray (5Y 6/2) silt coatings in cracks and on peds; boundary gradual and wavy. This horizon wet, and free moisture seeped out along face of pit. A'2lx & B'2ltx 9941

29 to 39 inches. Mottled reddish yellow (7.5YR 6/6) and gray (5Y 6/1) silt loem; mottles are many medium and distinct; yellowish red (5YR 5/6) spots around iron concretions; weak coarse angular blocky structure; friable; no roots; many soft iron and manganese concretions; many pores; several large vertical cracks filled with light gray (5Y 7/2) silty clay loem; boundary gradual and wavy. B'22tx A122x 9942

39 to 50 inches. Mottled strong brown (7.5YR 5/8) yellowish red (5YR 4/6) and light clive gray (5Y 6/2) silt loam; mottles are many medium and prominent; weak medium and coarse angular blocky structure; friable; few iron and manganese concretions; some pores; several large vertical cracks filled with light gray (5Y 7/2) silty clay loam and some with silt loam; boundary gradual and wavy. B'23tx 9043

B'3tx 50 to 60 inches. Nottled vellowish red (5YR 4/6) reddish vellow (7.5YR 6/6) and light gray (5Y 7/1) silt losm; mottles are many medium and prominent; structureless; firm; some iron and manganese concretions; few pores; much light gray (5Y 7/1) silt coatings on peds and in cracks.

The Ap, A'21x and B'21tx, and B'3tx horizons were sampled for the Bureau of Public Roads. Romarks:

Stereoscopic microscope observations:

B'21tx and A'22t: A very few thin patchy clay films.

OIL	SURVEY	LABORATORY LINCOLL, NEDT. JULY 1939
SOIL		Calloway LOCATION Panola County, Mississippi silt loam
	SOIL NOS.	S59ML88-54-2 LAB. NOS. 9945-9951

 	enjarenterestred end	1B1	9	PARTI	CLE SIZ	E DISTRIB	UTION (in	mm.) (pe	r cent)	3A1		#11-1-14-14-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
DEPTH INCHES	HORIZON	VERY COARSE SAND	COARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY		-	2A2 > 2	TEXTURAL CLASS
		2-1	1-0,5	0.5-0.25	0, 25-0, 10	G. 10-0.05	0,05-0,002	< 0.002	0.2-0.02	0.02-0.002	1 -	
0-7	Ap	0.2a	0.3a	O.la	0.3a	0.74	91.1	7.3	57.3	34.7	! -	81
7-11	B2	0.2a	0.6a	0.3a	0.4a	0.5a	77.6	20.4			-	811
11-20	B& A	0.3a	0.68	0.4a	0.5a	0.7a	75.7	21.8	39.9 38.4	38.2	-	sil
20-30	A'21x	0.8a	1.4a	0.6a	0.8a	0.9a	79.0	16.5	39.6	40.7	-	sil
30-37	See	<0.1	0.6a	0.5a	0.8a	1.0a	76.1	21.0	40.5	37.0	-	ail
37-47	Desc.	0.la	0.2a	0.2a	0.5a	0.9a	73.2	24.9	38.2		-	sil
47-57	B'3tx	<0.1 ⋅	<0.1	0.la	0.3a	0.7a	78.9	20.0	41.6	38.2	-	sil
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Soil Type: Calloway silt loam

Soil Nos.: 859941ss-54-2

Fanola County, Mississippi, Son Harmon farm, 12 miles east of Ratesville on Sardis Iake Road, 614 feet south and 1,102 feet west of HE 1/4 HE 1/4, Sec. 34, TSS, RTW. Photo No. NK-2H-1S.

Wegetation and Use: Pasture of bermudagrass and white clover. Been in pasture for probably 10 years.

Slove and Iand Form: Nearly level (4 percent) broad flat in nearly level to gently aloning terrace tonography.

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Described by: R. C. Carter, January 29, 1959.

Borison and Lincoln Lab. No.

O to 7 inches. Mottled dark grayish brown (10YR 4/2) and grayish brown (2.5Y 5/2) silt loam; mottles are many medium and faint; weak fine and coarse crumb structure; very friable; numerous grass roots; many fine soft manganese and iron concretions; boundary clear and smooth. Ap 9945

7 to 11 inches. Mixed yellowish brown (10YR 5/4) and brown (10YR 4/3) silt loam; weak fine and medium subangular blocky structure; moist very friable and wet slightly sticky; much earthworm activity, channels filled with Ap soil material many grass roots; few fine manganese and iron concretions; 9946 boundary clear and smooth.

11 to 20 inches. Mottled dark brown (7.5YR 4/4) and grayish brown (2.5Y 5/2) heavy silt loam; mottles are many fine and prominent; weak fine and medium subangular blocky structure; moist friable and wet slightly sticky; channels filled with material from overlying horizons; many fine roots; many soft iron concretions and few fine manganese concretions; few pores; boundary clear and wavy.

20 to 30 inches. Clive (5Y 5/3) to light olive gray (5Y 6/2) silt losm with many fine distinct mottles of brown (10YR 4/3 and 5/3); weak medium and coarse angular blocky structure; frisble, slightly sticky; few roots; many soft iron and manganese concretions; many medium-sized pores; vertical cracks filled A'21x 9948 with light olive gray (5Y 6/2) silty clay loam; boundary gradual and wavy. This horizon wet, and free moisture seeped out along face of pit.

30 to 37 inches. Mottled light clive gray (5Y 6/2) and dark brown (7.5YR 4/4) silt loam; mottles are many medium and prominent; weak medium and coarse angular blocky structure; friable, slightly sticky; B'21tx A122x 9949 few roots; many soft iron and manganess concretions; many pores; vertical cracks filled with light play gray (5% 6/2) silty clay loom; boundary gradual and irregular. This horizon wat and free

SOIL Dubbs fine sandy losm SOIL Not. Data-Mi-OO6 LOCATION Chrisman County, Mississivoi

SOIL SURVEY LABORATORY Beltsville, Maryland LAB. Nos. D4385 - D4391

	I	181b						Size cles	e and portion	le dismete	r (mm) 3A	1						
			Total					Sand		SH]			382		sè fragme	nts 30
		Sand	Silt	Clay	Very	Coarse	Medium	Fine	Very Sne		Int. III	Int. 11		ŀ		2A2		
Depth	Horizon	(2-0.05)		(= 0 002)	coerse			(0.25-0.1)		0 05-0 02		(0.2-0.02)	(2-8 1)	ł	Cm	> 2	2 - 19	19-
(In.)		(2-0.03)	0.002)	(= 0 002)	(2-1)				(4.1-0.00)	V.VV.UZ	0.002)	10.240.02)	(4-0.1)	l		l	Pc	L of _
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4-9 9-15	B21t B22t		24.3 23.2	31.1 28.8	١,٠,١	0.8	9.8 8.0	4.9 5.7	38.1 40.5					l				
15-23	B3		19.9	22.3	0.1	0.7	0.7	10.2	46.2			1		-	<u> </u>		 	
23-30	di		16.9	18.6	-	0.6	0.6	13.8	49.5					l				
30-50	i cez		20.4	11.8	0.1	4.5	A.A.	9.7	49.1									
50-60	IIC3		6.7	2.3	0.2	36.2	40.3	15.9	4.4									
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	6A3a							Bulk donali	,	401	٧	fater conte	et		4Ci		pH	
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	1.22002				_			34 hear	Over dry		l	≯ş ber	15 per	'			(1:1)	(1:1
	Pct.	Pct.	ļ		Pet.	Pet.	v∝	g/cs	g/cc		Pet.	Pet.	Pat.	l	in/in		KÇI	H20
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4-9	1.0	l	1								1			l				4.6
9-15	0.8																	3.6
15-23	0.4		Γ								l		,	l				4.9
23-30	0.3										l			l				5.
<u>30-50</u> 50-60	0.1		 	-	-							 		<u> </u>	-		<u> </u>	6.2
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(ln.)	Ca	Mg	Na	K	Sum	acidity	Sum		AI		l	Seren	liton	water			Sum	NH40
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O-4	7.9	1.4		1,4		2.9	12.6	T						· ·		1	77	
4-9	7.7	2.0		14		11.3	21.4		l		l						47	
9-15	5.3	2,2		_ 5_		12,3	20.3	<u> </u>						ļ			39	ļ
15-23	6.9	3.2		-		7.1	- .		l		l						ــــــــــــــــــــــــــــــــــــــ	
23-30	7.5	3.0		1.3		4.6	15.4		l		l			,			70	
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50-60	1.2	0.3		.1		0.0	2,4		l		l		·				۳,	
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 ,	77-55			Clay Frac	ion Analysi	s 7Alb-d		ļ										
(le)	Mt.	Çhi.	Vm.	Clay Frac	ion Analysi Int.	s 7Alb-d Qtz.	NO.	Cilebetts										
Depth (in.)	Mt.	ÇM.	Vm.			1	10.	Glibbatts				<u>, </u>						
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	Mt.	См.		Mi.		1		Gibbette				Mt 1 lat 1			- chlorite, V z quertz,	w. w	ricutito, mi Alpita	= mics
	#t.	CM.	7A:	Mi.		1				*		iat. — t	nteretretifie	d toyor, Qt	z. — quertz,	. KI. — Kec	iinite	
	Mt.	Chi.	7A:	Mi.		1				*		int. — i Ratatiya	nteretzetifie amounts:	el teyer, Qt blank — no	z. — quertz, et determine	. KI. — Kac ıd, dush —	Ainite not detect	eć,
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	Mt.	Chi.	7A:	Mi.		1				*		int. — i Ratatiya	nteretzetifie amounts:	el teyer, Qt blank — no	z. — quertz, et determine	. KI. — Kac ıd, dush —	Ainite not detect	eć,
	Mt.	Chi.	7A:	Mi.		1				*		int. — i Ratatiya	nteretzetifie amounts:	el teyer, Qt blank — no	z. — quertz, et determine	. KI. — Kac ıd, dush —	Ainite not detect	eć,
	Met.	Chi.	7A:	Mi.		1				*		int. — i Ratatiya	nteretzetifie amounts:	el teyer, Qt blank — no	z. — quertz, et determine	. KI. — Kac ıd, dush —	Ainite not detect	ed,

Soil Type: Dubbs fine sandy loam

Soil No.: D44M1-006

Location: Quitmen County, Mississippi, NW 1/4, SW 1/4, Sec. 23?, T 26N, R lW Collected by: R. W. Simonson, H. B. Vanderford, and C. B. Melton Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horizon and Beltsville Lab. No.

77/12

O to 4 inches. Dark brown (10TR 4/3) fine sandy loam; weak, fine granular structure; Ap D4385 very friable; abrupt smooth boundary.

4 to 9 inches. Dark yellowish brown (107R 4/4) fine sandy clay losm; moderate, fine and medium subangular blocky structure; friable; patchy clay films on peds; gradual smooth B21t D4386 boundary.

9 to 15 inches. Dark yellowish brown (10TR 4/4) sandy clay loam; moderate medium subangular B22t D4387 blocky structure; friable; patchy clay films on peds; common fine soft brown concretions;

clear smooth boundary.

15 to 23 inches. Yellowish brown (10YR 5/4) loam to fine sandy loam; weak medium and B3 D4388 coarse subangular blocky structure; friable; gradual smooth boundary.

C1 D4389 23 to 30 inches. Yellowish brown (10YR 5/6) fine sandy losm; structureless; very friable; gradual smooth boundary.

30 to 50 inches. Light yellowish brown (10YR 6/4) fine sandy losm; structureless; very D4390 friable; gradual smooth boundary.

SOIL Dubbs fine sandy loam	SOIL Nos.	Di-HM1-008 LOCATION	Quitman County, Mississippi
SOIL SURVEY LABORATORY Beltsville, Maryland		LAB. Nos	D4399-D4405

		TRIP	Total		_				and perti	de diamete Sil		JA.1			_	T Can-		
		<u> </u>	1000					Send		301						242	se fragmer	i tus
Depth	Horizon	Seed	SIII	Clay	Very	Coarse	Medium	Fine	Yery fine		let. 🎞	int. 🎞				> 2	2 - 19	19-76
(in.)		(2-0.05)	(0.05 0.002)	(< 0.002)	· coarse (2-1)	(1-0.5)	(0.5-0.25)	(0.25-0.1)	(0.1-0.05)	2.05-0.02	(0.02- 0.002)	(0.2-0.02)	(2-0.1)				Po	l. of
		•				Pe	t. of <u>-< 2</u> 1	<u> </u>					_		Ь	Pct.	- 7	6mm
0_4 4-10	Ap Bl		22.6	6.7 18.8	-	0.0	0.2	15.9 8.8	34.3 46.0									
10-15	Belt		31.5	22.0	-	0.1	0.1	4.9	41.4									
15-22	B22t		47.6	24.0		0.1	0.1	2.5	25.7									
22-28	B3			21.5	0.1	0.1	0.3	10.3	30.6									
28-36	cī.		37.1 15.7	14.4		ŏ.i	0.7	36.8	32.3									
28-36 36-60	IIC2		11.9	11.2		0.1	1.6	50.9	24.3			_				†		
J o -00																<u></u>		
	6АЗа							Dolla density			· · · · · · · · ·	Vater conte	nt I				рИ	801.g
Depth (in.)	Organic Matter	Nitrogun	C/N		Carbooute as CaCO _B													(1:1)
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	Pct.	Pet.			Pet.		g/cc	g/oc	E/ 00		Pct.	Pot.	Pat.					H ₂ 0
0-14	0.6																	6.4
4-10	0.7																	5.8
10-15	0.6	ļ	ŀ	↓		ļ		-		ļ		├	<u> </u>	ļ		1		5.6
15-22	0.4											1	1					5.3
22-28	0.4		1	1		1	1	1	1			1	l			1	1	5.4
28 <u>-36</u> 36-60	0.3	 	 	+	t -	 	 	 	-			†	 	† 	+	1	_ ×	5.6
20-00	0.1		1	1			1					1	1			1		۰۰۰ ا
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	············	Eutomotel	de beses	5Bla	6HLa			·			_				1		Base sat	uration
		LADEVES				l .						1		1				
Danith	6N2a	602ъ	6P2a.	602a		5A3a											5C3	I
Depth (IR.)		602ъ	6P2a.	6Q2a	Ext.	Sum											Suza	
Depth (IR.)	6 182 d.	-	T .		Ext. Acid-	Sum Cat-											Sum Cat-	
		602ъ	6P2a.	6Q2a	Ext. Acid- ity	Sum Cat- ions		 									Suza	Pet.
(ln.)	Ca	602ъ Мя	6P2a.	69,2а. к	Ext. Acid- ity	Sum Cat- ions	1	 									Sum Cat- ions Fct.	Pet.
(In.)	Ca 4.6	602b Mg	6P2a.	60,2a.	Ext. Acid- ity meg/100;	Sum Cat- ions 7.8	 	<u>.</u>		,							Sum Cat- ions Fet. 78	Pct.
(ln.)	Ca	602ъ Мя	6P2a.	69,2а. к	Ext. Acid- ity	Sum Cat- ions											Sum Cat- ions Fct.	Pct.
0_4 4_10 10_15	4.6 10.6 12.1	602b Mg 0.9 1.8 2.2	6P2a.	692a K	Ext. Acid- ity meg/100; 1.7 3.9	Sum Cat- ions 7.8 16.7	 				_						Sum Cat- ions Fet. 78	Pct.
0-4 4-10 10-15 15-22 22-28	4.6 10.6 12.1 12.7 11.5	0.9 1.8 2.2 2.3 2.0	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1					_						Sum Cat- ions Fet. 78 77 74 71 73	Pct.
0_4 4_10 10_15 15_22 22_28 28_36	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8											Sum Cat- ions Fet. 78 77 74 71 73 73	Pct.
0-4 4-10 10-15 15-22 22-28	4.6 10.6 12.1 12.7 11.5	0.9 1.8 2.2 2.3 2.0	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1											Sum Cat- ions Fet. 78 77 74 71 73	Pet.
0_4 4_10 10_15 15_22 22_28 28_36	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8		-									Sum Cat- ions Fet. 78 77 74 71 73 73	Pct.
0-4 4-10 10-15 15-22 22-28 28-36	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8					·						Sum Cat- ions Fet. 78 77 74 71 73 73	Pct.
0-4 4-10 10-15 15-22 22-28 28-36	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8		-									Sum Cat- ions Fet. 78 77 74 71 73 73	Pet.
0-4 4-10 10-15 15-22 22-28 28-36 36-60	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8											Sum Cat- ions Fet. 78 77 74 71 73 73	Pet
0-4 4-10 10-15 15-22 22-28 28-36 36-60	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8		-									Sum Cat- ions Fet. 78 77 74 71 73 73	Pet
0-4 4-10 10-15 15-22 22-28 28-36 36-60	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8		-									Sum Cat- ions Fet. 78 77 74 71 73 73	Pct
0-4 4-10 10-15 15-22 22-28 28-36 36-60	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8											Sum Cat- ions Fet. 78 77 74 71 73 73	Pct.
0-4 4-10 10-15 15-22 22-28 28-36 36-60	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8											Sum Cat- ions Fet. 78 77 74 71 73 73	Pot
0-4 4-10 10-15 15-22 22-28 28-36 36-60	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8											Sum Cat- ions Fet. 78 77 74 71 73 73	Pct.
0-4 4-10 10-15 15-22 22-28 28-36 36-60	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8											Sum Cat- ions Fet. 78 77 74 71 73 73	Pci
0-4 4-10 10-15 15-22 22-28 28-36 36-60	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8											Sum Cat- ions Fet. 78 77 74 71 73 73	Pct
0-4 4-10 10-15 15-22 22-28 28-36 36-60	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8											Sum Cat- ions Fet. 78 77 74 71 73 73	Pct
0-4 4-10 10-15 15-22 22-28 28-36 36-60	10.6 10.6 12.7 11.5	0.9 1.8 2.2 2.3 2.0 1.5	6P2a.	6Q2a	Ext. Acid- 1.7 3.9 5.2 6.3 5.2	7.8 16.7 19.9 21.8 19.1 12.8											Sum Cat- ions Fet. 78 77 74 71 73 73	Pet

Soil Type: Dubbs fine sandy loam

Soil No.: Dahmi-008

Location: Quitman County, Mississippi, SE 1/4, NW 1/4, Sec. 29, T 27N, R 1E Collected by: R. W. Simonson, H. B. Vandarford, and C. B. Melton Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horizon and Beltsville Lab. No.

O to 4 inches. Very dark grayish brown (10TR 3/2) fine sandy loam; weak fine granular structure; very friable; abrupt smooth boundary. Ap D4399

4 to 10 inches. Brown (10TR 5/3) loam; weak, medium subangular blocky structure; friable; D4400 clear smooth boundary.

10 to 15 inches. Yellowish brown (10YR 5/6) fine sandy clay loam; moderate, medium subangular blocky structure; frisble; patchy clay films on peds; gradual smooth boundary. B21t 84401

15 to 22 inches. Yellowish brown (10YR 5/6) fine sandy clay loss; moderate medium subangular blocky structure; friable; patchy clay films on peds; gradual smooth boundary. B22t D4402

22 to 28 inches. Variegated yellowish brown (10YR 5/6) and brown (10YR 4/3) loam; weak, B3 D4403 coarse subangular blocky structure; few clay films in pores and on peds; friable; gradual smooth boundary.

28 to 36 inches. Yellowish brown (10TR 5/6) fine sandy loam; structureless; very friable; C1 D4404 diffuse smooth boundary.

36 to 60 inches. Yellowish brown (10YR 5/6) fine sandy loss to lossy fine sand; IIÇ2 D4405 structureless; very friable; some stratification with a thin band of sandy clay loam in this horizon.

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	T	181b							es and parti										
Jepth (in.)	Horizon	\$and (2-0.95)	Total SIM (0.05- 0.002)	Clay (= 0.002)	Very coerse (2-1)	Coarse (1-0.5)	Madium (0.5–0.25)	(0.25-0.2	Yery fine 1 (0.1–0.05)	0.05-0.02	int. III	int. <u>II</u> (0.2-0.02)	(2-0.1)		382 Cm	2A2 > 2	2 - 19	19-76 rt. of	
9-20 0-30 0-36 6-48	AP B21t B22t IIB3 IIC1 IIC2		05.5 54.8 54.1 39.2 32.9 42.2	24.9 17.3 10.5 12.3		0.2 0.1 0.1 0.1 0.2	0.2 0.1 0.1 0.1 0.1 0.1	1.2 0.6 0.5 1.1 2.3 1.4	13.6 13.3 20.3 42.2 54.1 43.8							Pet.	• • • • • • • • • • • • • • • • • • • •	Penin	
8-36	IIC3		29,1	7.5	•	0,1	0.1	2.9	60.3										
epth (in.)	6A3a Organic Matter		C/N		Carbonate es CaCO ₃	at fe		Hulk despi 4Alu iş bar	4A1h Oven dry	401 COLE		ater conte 481e ≥s ber	482 15 ber		4CI WRD in/in		BCic (1:1) KCi	8C1e (t:1) HgO	
0-4 4-9 9-20 0-30 0-36	1.5 1.2 0.8	Pct.	-		Pat.	Pet.		g/sc	<u>g/oc</u>		Pot.	Pot.	Pct.					6.6 6.2 5.1 5.3 5.6	
6-18 8-56	0.3 0.3 0.1							·						,				5.3	
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Soil Type: Dubbs silt loam

Soil No.: DahMi-001

Location: Tunica County, Mississippi, NW 1/4, Sec. 6, T 68, R 11W Collected by: R. W. Simonson, H. B. Vanderford, and C. B. Melton Described by: R. C. Carter, W. A. Cole, and Frank Scott

Beltsville Lab. No.

Ap D4354 0 to 4 inches. Very dark grayish brown (10YR 3/2) silt loam; weak to moderate medium granular structure; friable; neutral; abrupt amooth boundary. 4 to 9 inches. Dark brown (10YR 3/3-4/3) silty clay loam; moderate, fine and medium subangular blocky structure; clay films on most peds; friable; plastic, slightly sticky; B21t D4355 slightly acid; gradual smooth boundary. **B22t** 9 to 20 inches. Dark brown (10YR 3/3-4/3) heavy silt loam; moderate, fine and medium subengular blocky structure; friable; slightly plastic, slightly sticky; clay films on peds; strongly acid; gradual smooth boundary. D4356 IIB3 20 to 30 inches. Brown (10TR 4/3) losm; weak, coarse subangular blocky structure; friable; D4357 slightly plastic, slightly sticky; patchy clay films on peds; strongly acid; gradual smooth boundary. 30 to 36 inches. Brown (10YR 5/3) very fine sandy loam; structureless to weak, coarse subangular blocky structure; very friable; few clay films in pores and in root channels; IICl

D4358 strongly acid; gradual smooth boundary.

36 to 48 inches. Brown (10YR 5/3) loam; structureless; single grain; very friable; strongly acid; diffuse smooth boundary. 1102 D4359

IIC3 48 to 56 inches. Brown (10YR 5/3) very fine sandy loam with a few fine faint pale brown (10YR 6/3) mottles; structureless; very friable; strongly acid. 114360

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

SCS-421 10-64 (Rev. 9-66)

SOIL Dubbs loam _ SOIL Nos. D44-Mi-QO3 LOCATION Tunica County, Mississippi SOIL SURVEY LABORATORY Beltsville, Maryland __ LAB. Nos. _ D4367 - D4372 Size class and particle diameter (mm) 3AI Sand Slit 181b Course fragments 381 Very coarse (2-1) Int. 🎞 Silt Medium Fine Very fine int. II Depth 2 - 19 19-76 (2-0.05) (0.05-0.002) (= 0.002) (1.-0.5) (0.5-0.20) (0.25-0.1) (0.1-0.05) (0.05-0.02) (0.02-0.02) (0.2-0.02) (2-0.1) 18.2 38.2 25.3 16.3 35.2 26.4 0.2 0.2 3.5 33.5 0.1 0.1 1.2 25.2 - 1.6 46.7 Ap B21t B22t

Soil Type: Dubbs loam Soil No.: D44Mi-003

Location: Tunica County, Mississippi, NW 1/4, NW 1/4, Sec. 17, T 68, R 11W Samlected by: R. W. Simonson, H. B. Vanderford, and C. B. Melton Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horison and Beltsville Lab. No.

0 to 5 inches. Dark grayish brown (10YR 4/2) to dark brown (10YR 3/3) loam; weak fine Ap D4367 and medium granular structure; very friable; strongly acid; abrupt smooth boundary. 5 to 12 inches. Dark brown (10YR 3/3) clay loss; interior peds brown (10YR 4/3); moderate fine and medium subangular blocky structure; firm; plastic, sticky; continuous clay films on peds; very strongly acid; gradual smooth boundary. B21t D4368 12 to 19 inches. Dark brown (lOYR 3/3) sandy clay loam; interior peds brown (lOYR 4/3); moderate fine and medium subangular blocky structure; friable; slightly plastic, slightly sticky; films on most of peds; very strongly acid; gradual smooth boundary. B22t D4369 19 to 26 inches. Dark yellowish brown (10TR 3/4) heavy very fine sandy loam; weak B3 D4370 coarse subangular blocky structure; friable; patchy clay films on peds; gradual smooth boundary.

26 to 36 inches. Dark yellowish brown (10YR 3/4) losmy fine sand; structureless; single IICl D4371 grain; very friable; strongly acid; diffuse smooth boundary.

IIC2 36 to 60 inches. Brown (10YR 4/3) fine sand; structureless; single grain; very friable; D4372 medium acid.

SOIL Dubbs losm SOIL Nos. Dit-Mi-OO4 LOCATION Tunics County. Mississippi

SOIL SURVEY LABORATORY Beitsville, Maryland LAB. Nos. D4373 - D4378

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			Total					Send		3(t				382	Cos	rse fragme	nts 3
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(in.)		(2-0.05)	(0.05- 0.002)	(~ 0.002)	(2-1)	(1-0.5)	(0.5-0.25)	(0.25-0.1)	(0.1-0.05)	0.05-0.02	(0.02- 0.002)	(0.2-0.02)	(2-0.1)		Cm		. ا	it. of
•		_	0.002,	<u> </u>	'	PC	L of == 2 :	·	١	<u> </u>	Ų.00Z,					Pct.		76mm
0-5	Ap		55.5	15.1	0.1	0.3	0.6	3,5	25.2			ı		-				
5-11	B21t		42.6	28.5	_	0.1	0.1	0.7	28.0									
11-1 <u>4</u>	B22t	L.	38.4	24.4	L	0.1	0-7	1.0	36.0									
14-21	33		31.9	16.8	-	0,1	0.1	1.6	49.5									1
21-33	cī		39.6	16.5	_	0.2	0.2	1.1	42.4									
33-60	C22		10.4	12.9	l - I	0.2	0.2	0.9	45.4									
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	640.							Bulk densit	,		W	later conte	mt .	ļ,			pH	
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(in.)			""		as CaCO _b	as Fe		4470	444711			7010	407		l		1 0010	**
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	Pet.	Pet,			Pct.	Pet.	g/cc	g/cc	g/cc		Pct.	Pet.	Pct.		in/in		KCI	H ₂
0-5	1.0																	6.
5-11	0.7	I	1	1										1			1	4.
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Depth	6H2d	602b	SP2a	6Q2a		Ext.											503	50
(in.)	1			_			5A3a		Ext.			ÇEÇ	Ext.	15-ber	Ça/Mg			
,	Ca	Mg	Na	K	Sum	acidity	Sum		AL			Sum	iron	water			Sum	NH4
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W. E				0													72	
0-5	8.0	1.8				30.7												
5- <u>1</u> 1	6.2	3.2		-5		10.7	22.6										53	
5-11 11-14	6.2	3.2 3.0		.5 .4		9.4	20.5									_	54	_
5-11 11-14 14-21	6.2 7.7 6.1	3.2 3.0 2.9		.5 .4		9.4	20.5 15.4									_	54 50	\vdash
5-11 11-14 14-21 21-33	6.2 7.7 6.1	3.2 3.0 2.9 2.9	. .	.5 .4		9.4 9.1 4.9	20.5 18.4 15.5	A-1								_	54 50 68	
5-11 11-14 14-21 21-33	6.2	3.2 3.0 2.9		.5 .4		9.4	20.5 15.4	**						**			54 50	
5-11 11-14 14-21 21-33	6.2 7.7 6.1	3.2 3.0 2.9 2.9		.5 .4		9.4 9.1 4.9	20.5 18.4 15.5						241	- · ·			54 50 68	
5-11 11-14 14-21 21-33	6.2 7.7 6.1	3.2 3.0 2.9 2.9		.5 .4		9.4 9.1 4.9	20.5 18.4 15.5	**				•					54 50 68	
5- <u>1</u> 1	6.2 7.7 6.1	3.2 3.0 2.9 2.9		.5 .4		9.4 9.1 4.9	20.5 18.4 15.5			_	<u> </u>	•	* * * * * * * * * * * * * * * * * * * *				54 50 68	
5-11 11-14 14-21 21-33	6.2 7.7 6.1	3.2 3.0 2.9 2.9		.4 .4 .4	on Analysis	9.4 9.1 4.9 3.2	20.5 18.4 15.5			•			***	- "			54 50 68	
5-11 11-14 14-21 21-33 33-60	6.2 7.7 6.1	3.2 3.0 2.9 2.9	Vm.	.4 .4 .4	ion Analysis	9.4 9.1 4.9 3.2	20.5 18.4 15.5	Glibbelte		•	-1						54 50 68	
5-11 11-14 14-21 21-33 33-60	6.2 7.7 6.1 7.3 7.8	3.2 2.9 2.9 2.6		.5 .4 .4 .4 .5 .5 .6		9.4 9.1 4.9 3.2	20.5 18.4 15.5 14.0	Glabalta		• •	<u> </u>	-	***				54 50 68	
5-11 11-14 14-21 21-33 33-60	6.2 7.7 6.1 7.3 7.8	3.2 2.9 2.9 2.6	Vm. 7A2 X-18	-5 ta -14 ta -14 ta Clay Fracti		9.4 9.1 4.9 3.2 7Alb-d Qtz.	20.5 18.4 15.5 14.0	Glaberte				10t. — N	lontmer/No	nite, Chi. —	chlorite, Vr	n Vorm	54 50 68 77	- mi
5-11 11-14 14-21 21-33 33-60	6.2 7.7 6.1 7.3 7.8	3.2 2.9 2.9 2.6	782	-5 ta -14 ta -14 ta Clay Fracti		9.4 9.1 4.9 3.2 7Alb-d Qtz.	20.5 18.4 15.5 14.0			•	<u> </u>	int. — k	nterstratifie	d layer, Qt	z. == quartz,	Kl Keol	54 50 68 77	
5-11 11-14 14-21 21-33 33-60	6.2 7.7 6.1 7.3 7.8	3.2 2.9 2.9 2.6	782	-5 ta -14 ta -14 ta Clay Fracti		9.4 9.1 4.9 3.2 7Alb-d Qtz.	20.5 18.4 15.5 14.0					int. — k Relativa	nteratratifie amounts:	d layer, Qti blank — no	z. = quartz, t determine	Ki. = Keol 1, dash = :	514 50 68 77	ed,
5-11 11-14 14-21 21-33 33-60	6.2 7.7 6.1 7.3 7.8	3.2 2.9 2.9 2.6	782	-5 ta -14 ta -14 ta Clay Fracti		9.4 9.1 4.9 3.2 7Alb-d Qtz.	20.5 18.4 15.5 14.0			•		int. — k Relativa	nteratratifie amounts:	d layer, Qti blank — no	z. == quartz,	Ki. = Keol 1, dash = :	514 50 68 77	ed,
5-11 11-14 14-21 21-33 33-60	6.2 7.7 6.1 7.3 7.8	3.2 2.9 2.9 2.6	782	-5 ta -14 ta -14 ta Clay Fracti		9.4 9.1 4.9 3.2 7Alb-d Qtz.	20.5 18.4 15.5 14.0					int. — k Relativa	nteratratifie amounts:	d layer, Qti blank — no	z. = quartz, t determine	Ki. = Keol 1, dash = :	514 50 68 77	ed,
5-11 1-14 4-21 11-33 13-60	6.2 7.7 6.1 7.3 7.8	3.2 2.9 2.9 2.6	782	-5 ta -14 ta -14 ta Clay Fracti		9.4 9.1 4.9 3.2 7Alb-d Qtz.	20.5 18.4 15.5 14.0					int. — k Relativa	nterstratifie amounts:	d layer, Qti blank — no	z. = quartz, t determine	Ki. = Keol 1, dash = :	514 50 68 77	ed,
5-11 1-14 4-21 11-33 13-60	6.2 7.7 6.1 7.3 7.8	3.2 2.9 2.9 2.6	782	-5 ta -14 ta -14 ta Clay Fracti		9.4 9.1 4.9 3.2 7Alb-d Qtz.	20.5 18.4 15.5 14.0				<u> </u>	int. — k Relativa	nterstratifie amounts:	d layer, Qti blank — no	z. = quartz, t determine	Ki. = Keol 1, dash = :	514 50 68 77	ed,
5-11 1-14 4-21 1-33 3-60	6.2 7.7 6.1 7.3 7.8	3.2 2.9 2.9 2.6	782	-5 ta -14 ta -14 ta Clay Fracti		9.4 9.1 4.9 3.2 7Alb-d Qtz.	20.5 18.4 15.5 14.0					int. — k Relativa	nterstratifie amounts:	d layer, Qti blank — no	z. = quartz, t determine	Ki. = Keol 1, dash = :	514 50 68 77	ed,

Soil Type: Dubbs loam Soil No.: DhhMi-OO4

Location: Tunica County, Mississippi, SE 1/4, NE 1/4, Sec. 13, T 68, R 12W Collected by: R. W. Simonson, R. B. Vanderford, and C. B. Melton Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horizon and Beltsville Lab. No.

O to 5 inches. Dark brown (10YR 3/3) silt loam with a high sand content; weak, fine Ap D4373 granular structure; friable; slightly acid; abrupt smooth boundary.

5 to 11 inches. Dark brown (10YR 3/3) clay loam; moderate, fine and medium subangular blocky structure; friable to firm; plastic; slightly sticky; clay films on most of the B21t D4374 peds; very strongly scid; gradual smooth boundary.

ll to 14 inches. Brown (10YR 4/3) heavy loam; moderate, fine and medium subangular blocky structure; frisble; slightly plastic; clay films on most of the peds; very B22t D4375 strongly acid; gradual smooth boundary.

14 to 21 inches. Brown (10YR 4/3) fine sandy losm with few fine faint pale brown (10YR 6/3) mottles; weak, medium and coarse subangular blocky structure; very friable; patchy clay films on peds and in pores; very strongly acid; gradual smooth boundary. B3 D4376

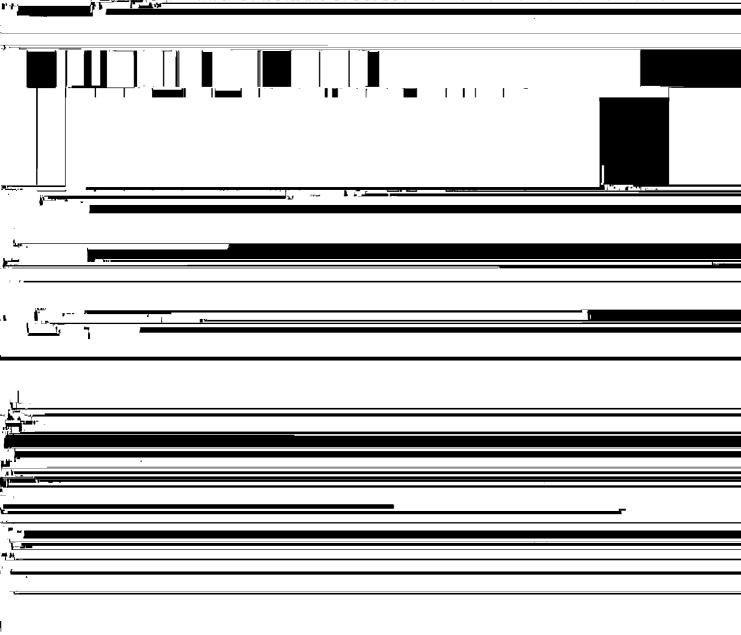
21 to 33 inches. Brown (10YR 5/3) losm; common, fine, faint pale brown (10YR 6/3) and brown (10YR 4/3) mottles; structureless; single grain; very friable; common fine brown black concretions; very strongly acid; diffuse smooth boundary. D4377

33 to 60 inches. Brown (10YR 5/3) fine sandy loam; common, fine, faint pale brown (10YR 6/3) mottles; structureless; single grain; very friable; common, fine brown black D4378 concretions; strongly acid.

SOIL Dabbe fine sendy loam SOIL Nos. Dhh-Mi-OO5 LOCATION Tunion County. Mississippi

SOIL SURVEY LABORATORY Beltsville, Maryland LAB. Nos. Dh379 - Dh364

		1819					Size clei	s and parti	clu diameté	r (mm) SA	1	• •					_
		Total					Sand		\$11	t	ľ	l "	1	382	Com	ne frigmen	ds 381
Depth (in.)	Morizon	Sand Sitt (2-0.05) (0.05- 0.0	Clay (= 0.002)	Very coarse (2-1)	ı	Medium (0.5–0.25)	Fine (0.25-0.1)	Very flee (0.1–0.05)	6.05-0.02	int, <u>111</u> (0.02– 9.002)	Int. II (0.2–0.02)	(2-0.1)		Cam	2A2 >= 2 Pct.	2 - 19 Pet.	
0-5	Ap	32	h 0.1	0.3	3.0	2.1	2.7	50.4	ī	*			•	_	- "	77	
5-10	Bi	32		_	0.2	0.2	1.7	51.3			l					l l	
10-18	B2t	عدة ا			0.2	0.3	0.8	37.0			l					ll	
18-28	B3	38			0.6	0.4	1.7	42.6			T	Ì		i			-
28-44	cī.	3/8			1.2	1.5	5.6	42.7			l					ll	
hh-fo		Lita	E 9 1	1.9 E	ro K	ع عوا	4 4	2 4	l I		l	l	l	l	l	<u> </u>	



Soil Type: Dubbs fine sandy loam
Soil No.: D44M1-005
Location: Tunica County, Mississippi, NW 1/4, NW 1/4, Sec. 25, T 58, R 12W
Collected by: R. W. Simonson, H. B. Vanderford, and C. B. Melton
Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horizon and Beltsville Lab. No.

0 to 5 inches. Brown (10YR 4/3) fine sandy loam; weak medium granular structure; very Ap . D4379 friable; clear smooth boundary.

5 to 10 inches. Dark brown (10YR 3/3) fine sandy loam; weak medium subangular blocky D4380 structure; friable; gradual smooth boundary.

10 to 18 inches. Dark brown (10YR 3/3) losm; moderate medium coarse subangular blocky D4381 structure; friable; patchy clay films on peds; gradual smooth boundary.

18 to 28 inches. Brown (10YR 4/3) fine sandy loam or loam; weak medium and coarse B3 D4382 subangular blocky structure; very friable; few clay films on peds and in pores; gradual smooth boundary.

28 to 44 inches. Brown (10YR 4/3) fine sandy losm; structureless; very friable; gradual D4383 smooth boundary.

ĮIC2 44 to 60 inches. Dark gravish hrown (1078 h/2) cand. cincle crain. very frishle

							•		. ,
SOIL Dundee fine s	andy losm	SOIL	Nos	D45-M1-013	LOCATION	Tallahatchie County,	Mississippi	-	
001E		0016	1740.		EQUALIO				
SOIL SURVEY LABORATORY	Beltsville, Maryland				LAB. No:	46238 - 46243		,	•

	1	1B1b						Size clas	and parti			i						,
			Total		L.,		, ,	Send		ŞII	t				382		rae fragme	nto 31
Depth	Horizon	Sand	Silt	Clay	Very	Coerse	Medium	Fine	Very fine		Int. III	Int. 🎞		l		2A2 ⇒ 2	2 - 19	19-
(In.)		(2-0.05)	(0.05 <u>–</u> 0.002)	(= 0.002	(Z-J)	(1-0.5)	(0.5-0.25)	(0.25–0. 1)	(0.1–0.05)	0.05-0.02	(0.02- 0.002)	(0.2-0.02)	(2-0.1)		Cm		Po	l st. of _
	<u> </u>	-			1 0 0		1.0 < 2:	12.6	26.8	101.0	Tags 0	60.5	14.7			Pct.	< 7	6min"
0-5 5-10	Ap B21t	41.5 32.9	42.7	15.8 29.8	0.2	0.9	0.4	7.7	24.4	18.6	17.8 18.7	62.5 50.2	8.5	l				
<u>10-18</u>	B22±	31.3	37.3 36.6	32.1		0.1	0.1	7.4	23.7	21.1	15,5	51.8	7.6	ļ			ļ	∟.
18-29	B3tg	49.3	24.9	25.8	٦-,	0.1	0.2	16.0	33.0	13.6	11.3	61.5	16.3	l				
29-42 42-56	IIClg	53.2 47.4	26.5 31.6	20.3	0.1	0.3	0.3	18.3 5.8	34.2 40.9	16.9 19.5	9.6	68.5 65.9	19.0 6.5					
							, ,						,			_	1	
	643a							Bulk densit	y	401	y	Veter cente	, 		4CI		pH	
Depth	Organic	Nitrogen	C/N		Carbonate	Ext. iron		4Ale	4Alb .			481c	482				8Cle	8C1
(ln.)	Matter				as CeCO ²	as fe		36 per	Oven dry	COLE	,	ig ber	15 ber		WRD		(1:1)	(1:1
	Pct.	Pct.			Pet.	Pet.	z /∞	g/es	g/cc		Pet,	Pat.	Pet.	l	in/In		KCI	H\$(
0-5	0.9													Γ .				6.
5-10 10-18	1.0															'		5. 4.
18-29	6.4									\vdash								4.
29-42 42-56	0.3																	5.4
42,-30	"			·				-										
	1					_				,		<u> </u>						-
		- Futenetal	bie bases !	EB1=	<u> </u>	6HLa	-	ĒČ	6G1d	,		-	tation to ob	<u> </u>	8D3		Base saf	turation
	6NZd	602b	6P2a	6Q2a		Ext.								ĺ	1		5C3	5C
Depth (in.)	Ca	Mg	Na	K	Sum	acidity	SA3a Sum		Ext. Al			CEC Sum	Ext. iron	15-bar weter	Co/Mg		Sum	NH ₄ C
	"		"-	"	-		cations		Ι‴_			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	""				cetions Pct.	Pel
0-5	8.6	1.7	1	0.3	meg/100 s	2.6	13.2	Ī				<u>† </u>					80	
5-10	10.3	2.5		0.3		5.4	18.5										71	
<u>10-18</u> 18-29	9.7	3.2		0.3	1	7.8 6.2	21.9 19.3			<u> </u>	-						68 68	
29-42	8.3	2.7		0.2		4.9	16.1										70	
<u>12-56</u>	9.3	3.7		0.3		4,6	17.9									-	74	╁
	-							,		, <u> </u>	<u> </u>						<u> </u> .	
_	<u> </u>		ļ,	Clay Frac	tion Analysi	r 7Albert					L.,_			<u> </u>		<u>.</u>		
Depth	Mt.	Cht.	Vm.	MI.	Int.	Qtz.	KS.	Qibbalte		1								
(ln.)	""	VIII.	7A				""											
	-		X-n		' 		1	À3 -							= chiorite, † iz. == quertz	44-	niculite, mi Dinite	= MK
																	not detect	led.
	⊢ −		 		-					1		tr. = tr	209, X = 31	hall, XX — #	oderate, XI	x — abund	lant, xxxx -	- domi:
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n.	t	,			<u> </u>					-								
	ı									-								

BPDA EGG-HTATTSVILLE, MD. 1845

Soil Type: Dundee fine sandy loam
Soil Mo.: D&SMI.Ol3
Location: Tellahatchie County, Mississippi, T, RLE
Collected by: R. W. Simonson, H, B. Vanderford, and C. B. Melton
Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horison and Beltsville Lab. No.

0 to 5 inches. Dark grayish brown (10TR 4/2) fine sandy loam; weak fine granular structure; very friable; abrupt smooth boundary. Ap 46238

5 to 10 inches. Dark grayish brown (10YR 4/2) silty clay loam; common medium faint mottles of dark yellowish brown (10YR 4/4); moderate fine and medium subangular blocky structure; friable; slightly plastic; slightly sticky; clay films on most of peds; B21t 46239

gradual smooth boundary.

10 to 18 inches. Nottled dark grayish brown (10YR 4/2) light brownish gray (10YR 6/2) and strong brown (7.5YR 5/6) silty clay loam; moderate medium and coarse subangular blooky structure: friable: slightly plastic: slightly structure; clay films on most of reds: 46240

18 to 29 inches. Light brownish gray (10TR 6/2) fine sandy clay loam with many fine distinct dark yellowish brown (10TR 4/4) and strong brown (7.5TR 5/6) mottles; weak coarse subangular blocky structure; friable; patchy clay films on peds and in pores; few fine brown and black concretions; gradual smooth boundary. B3tg 46241

29 to 42 inches. Gray (10TR 5/1) fine sandy loss with many fine distinct dark yellowish brown (10TR 4/4) and strong brown (7.5TR 5/6) mottles; structureless; very friable; few fine brown and black concretions; gradual smooth boundary. licle 46242

42 to 56 inches. Gray (10TR 6/1) heavy sandy loss with many fine distinct strong brown (7.5TR 5/6) mottles; structureless; very friable; few fine brown black concretions. IIC2g 46243

SOIL Dundag fine sandy loss	SOIL Nos. 125-Mi-015 LOCATION Take County, Mississippi	-
SOIL SURVEY LABORATORY Beitsville, Maryland	LAB. Nos 46252 - 46258	

		1016							s and puri									
			Total				_	Send		SH					385		ne fragme	eta 3
Depth (in.)	Herizon	Send (2-0.05)	\$#t #0.05~	Clay (= 0.002)	Very Coarse	Coerse (1-0.5)	Medium (0.5-0.25)	Fine 40.25-0.11	Very fine (0.1-0.05)	0.05-0.02	Int. 111 10.02-	Int. II (0.2-0.02)	(2-0.1)		Cres	2A2 3= 2	2 - 10	19-
,,			0.002)	ļ, <i>,</i>	12-17) . <u>ef</u> =< 2 (0.002)	10 0.00	(2 0/2)			Pct.		t. of _ Gmm
0-5 5-11	Ap B21t		58.7 54.5	7.9 22.6	0.4	0.5	0.4	3.0 2.3	29.1 18.8					ľ				
ú-15	B22t		19.8	21.5	0.4	1.1	0.6	2.2	24.4					l .	l	L		
	IID31g		45.9	25.4	0.1	0.2	0.2	1.3	26.9		_			_				
	IIB32g		<i>-</i> _	ا تــا			۱ ۱	ا ا	۔ ندا									
	TICLE		41.5	17.4	0.1	0.4	0.3	4.0	36.3				٠	-	├ -	_	<u> </u>	ŀ-
₩8-60	IICZg		46.8	17.6	-	0.3	0.3	2.5	32,5									
													•					1
	6A3a							Bulk dismit	_	401	W	4ter conta			4C1		pH	Τ
	Organic	Hitrogen	C/N		Carbonate as CaCO _a	Ext. from		4A1e	4A1h	***		481c	482		ـــــا		8Cic	8C1
(,,	Matter					_,		3g ber	Oven dry	COLE		iş bar	15 her		WRD		(1:1)	(1:
	Pet.	Pet.			Pet.	Pot.		g/00	g/os		Pct.	Pet.	Pat.		in/in		KCI	Hz
Q-5	0,6	rişi.		 	ret.	POL.	E/96	- P/-	g/cc		ru.	764.	- Fat.	_	 			6.
5-11	0.9	•					Ī											5.
11-15	0.8		igwdot	—	igsquare		<u> </u>	<u> </u>				L	L		<u> </u>	├		<u>b.</u>
15-26	0.4														1			 4.
26-38 86-18	-												• '		1			5.
8-60	0.4																	5.
		,					,									<u> </u>	_	
~~		Extractab	in boses 5	581a		6HLa	ä	EC .	5614				letting to ok	7	803		Saco set	aretio
Dopth	6M2d	602)	6PZz	6Q2a		Est.											5C3	5C
(in.)	Ça	ME	Ha	K	Sum	acidity	SAJe Sum cutions		Ext. Al			CEC Som	Ext. iron	15-ber water	Ca/Mg		Sum cations	MH4
0-5	4.6	1,4		1.1	meq/190 g	2,0	8.1						 	·			75	FE
5-11	8.5	2.4	i	.2		5.6	16.7						l				66	l
				.1.		7.0	15.3						L				5k	_
	6,2	2.0																
15-28	3.7	3.6		.3		6.9	19.5						l				65	1
15-28 26-36	3.7	3.6		.3		6.9	19.5										l -	
15-28 28-36 88-18	3.7 8.2	3.6		.3		6.9	19.5 16.0										76	_
15-26 16-36 16-16	3.7	3.6		.3		6.9	19.5				**						l -	
15-28 28-36 88-18	3.7 8.2	3.6		.3	ion Anatysi	6.9 3.0	19.5 16.0				<u></u>	_			,		76	
15-28 28-36 48-18 18-60	3.7 8.2	3.6	Vm.	.3	ion Analysi Int.	6.9 3.0	19.5 16.0	Gibbatte			<u></u>				h "		76	
15-26 26-36 46-16 18-60	3.7 8.2 9.1	3.6 9.7 4.3	Vm.	Clay Fract		6.9 3.9 3.0	19.5 16.0 16.6				<u></u>	No -4		ofts, Chil. =	chtorine. V	m. — Verm	76 82	- mic
11-15 15-26 26-26 36-48 48-60	3.7 8.2 9.1	3.6 9.7 4.3	¥m.	Clay Fract		6.9 3.9 3.0	19.5 16.0 16.6	Gibbanto A3 — co-			×4				chtorite, V		76 82	- mic
15-26 26-36 46-16 18-60	3.7 8.2 9.1	3.6 9.7 4.3	Vm.	Clay Fract		6.9 3.9 3.0	19.5 16.0 16.6				34 4	int. — I	nipskrátifi	el layer, Qt	z. — quertz,	, KI. — Kao	76 82	
15-26 26-36 46-16 18-60	3.7 8.2 9.1	3.6 9.7 4.3	Vm.	Clay Fract		6.9 3.9 3.0	19.5 16.0 16.6				<u>u</u>	int. = 1	nipostrátific amoniti:	ed layer, Qt blenk — no		. KI, — Kac Id, dask —	76 82	ed,
15-28 28-36 48-18 18-60	3.7 8.2 9.1	3.6 9.7 4.3	Vm.	Clay Fract		6.9 3.9 3.0	19.5 16.0 16.6				<u>w</u>	int. = 1	nipostrátific amoniti:	ed layer, Qt blenk — no	z quartz, Ł dotormina	. KI, — Kac Id, dask —	76 82	ed,
1.5-28 28-38 38-18 18-60	3.7 8.2 9.1	3.6 9.7 4.3	Vm.	Clay Fract		6.9 3.9 3.0	19.5 16.0 16.6					int. = 1	nipostrátific amoniti:	ed layer, Qt blenk — no	z quartz, Ł dotormina	. KI, — Kac Id, dask —	76 82	ed,
15-26 16-36 16-16 18-60	3.7 8.2 9.1	3.6 9.7 4.3	Vm.	Clay Fract		6.9 3.9 3.0	19.5 16.0 16.6				***	int. = 1	nipostrátific amoniti:	ed layer, Qt blenk — no	z quartz, Ł dotormina	. KI, — Kac Id, dask —	76 82	ed,

Soil Type: Dundee fine sandy loam

Soil No.: D45M1-015

Location: Tate County, Mississippi, about 50 rods southwest of IC depot, Savage, Mississippi.

T 58, R 10W

Collected by: R. W. Simonson, H. B. Vanderford, and C. B. Melton

Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horison and Beltsville Lab. No.

Ap 46252 O to 5 inches. Dark grayish brown (10YR 4/2) to brown (10YR 4/3) very fine sandy loam; weak, fine granular structure; with lower part of horizon being weak, coarse platy;

B21t 46253 5 to 11 inches. Dark grayish brown (10YR $\frac{1}{4}$ /2) silty clay loam; few fine faint dark yellowish brown (10YR $\frac{1}{4}$ /4) mottles; moderate, medium subangular blocky structure;

friable to firm; slightly plastic; slightly sticky; patchy clay films on peds and in pores;

clear smooth boundary.

B22t 46254 11 to 15 inches. Dark grayish brown (10YR 4/2) silt loam with common fine and medium faint mottles of dark yellowish brown (10YR 4/4); weak, fine and medium subangular blocky

and in pores; gradual smooth boundary.

11B31g 15 to 28 inches. Mottled light brownish gray (10YR 6/2) and grayish brown (10YR 5/2)
46255 heavy fine sandy loam; weak, fine and medium subangular blocky structure; friable; few
brown, black concretions; patchy clay films on peds and in pores; gradual smooth boundary.

IIB32g 28 to 38 inches. Mottled light brownish gray (10YR 6/2) and grayish brown (10YR 5/2) heavy 46256 fine sandy loam; structureless to weak, coarse subangular blocky structure; friable; patchy clay films on peds and in pores; few fine brown and black concretions; gradual

smooth boundary.

IIClg 38 to 48 inches. Mottled light gray (10YR 6/1) and brown (10YR 5/3) fine sandy losm; 46257 structureless; single grain; very friable; few fine brown, black concretions; diffuse smooth boundary.

IIC2g 48 to 60 inches. Mottled light gray (10YR 6/1) and brown (10YR 5/3) fine sandy loam; 46258 structureless; single grain; very friable; few fine brown, black concretions.

SOIL Dundee loss	· · · · · · · · · · · · · · · · · · ·	SGIL	Nos.	D45-M1-011	LOCATION _	Tunica County, Mississippi
SOIL SURVEY LABORATORY	Beltsville, Maryland				_ LAB. Nos	451412 - 451417

		1816							s and partic			1					_	
			Total	г	ļ .			Sand		Sil	t				382	Cos 2A2	ree fragme	ats 3
Depth (in.)	Horizon	3end (2-0.95)	581 (0.05- 0.002)	Cley (< 0.002)	Very coarse (2-1)	Coarte (1-0.5)	Medium (0.5–0.26)	Fine (0.25-0.1)	Very fine (0.1–0.05)	0.05-0.02	int. III (0.02- (0.002)	Int. II (0.2-0.02)	(2-0.1)		Cm	2A2 >= 2	2 + 19	19-
		•					. et <= 2 s				_					Pct.		76mm
0-5	Ap		48.0	18.8	0.6	0.9	0.6	5.7	25.4		l							
5-12 12-20	B21.t B22t		37.1 37.7	41.2 38.6	-	0.2	0.3	5.0 6.0	16.2 17.2		l							
20-29	83g		30.8	32.7		0.2	0.2	9.5	26.6	 	-				<u> </u>		†	
29-43	LICLE		29.7	16.8	-	0,2	0.1	13.2	40.0		l							
<u>43-60</u>	IIC5#		29.7	9.5		0.2	0.2	Ğ. b.	54.0				_				<u> </u>	
•				-	-							_						
		,		-			<u> </u>		l	<u> </u>	ļ						<u></u>	
	6A3a							Bulk densit	┞—	401	 *	Vater conta	mt.		4C1		pH	
Depth	Organic	Mitrogen	C/N		Carbonete	Ext. iron		4Ale	4A18		l	4Blc /	4B2		1	l	8Clc	8C1
(in.)	Matter		l		se CeCO ₃	as Fe		35 ber	Oven dry	COLE	l	3≤ bar	15 bar		WRD	l	(1:1)	a:
			l	1				l	l,	1	I				١	l	1	1
	Pct.	Pct.		L	Pet.	Pet,	g/cc	g/cc	g/cc_	L	Pct.	Pct.	Pat.	L .	in/in	L	KCI	Hz
0-5	1.5			Ī		•												6.
5-12	1.5		l								1				1	l		5.
12-20	1.2		 	↓	\vdash			ļ	<u> </u>	<u> </u>	<u> </u>	1		<u> </u>	<u> </u>		1	4.
20-29	0.8							Ι.			l			l				14.
29-43 43-60	0.8		l								1				1	l		4. 5,
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																.,		<u> </u>
		Extractal	de bases :	501a	_	6HLa	T i c	EC	661d				uties to cla	<u>y</u>	803		Base sat	hiratio
Depth (ia.)	6M2d Ca	602b Mg	6P2a Na	6Q2a K	Sum	Ext. ecidity	5A3u Sum	<u> </u>	Ext.			CEC Sum	Ext,	15-bar water	Ca/Mg		5C3 Sum	SC NH ₄
				l			Cations	l	l								cations Pcl.	Pc
0-5	9.8	2.5	T	1.4	meq/100 g	2.9	15.6		_	<u> </u>		 					81	1
5-12	15.0	5.1		1 .4		7.4	27.9										73	
12-20	13.0	5.8		1		8.0	27.2										71	
20-29	12.1	5.3		147		7.3	25.1		1								71	
29-43	8.5	3.6		.2		3.8	16.1										76	
<u> 43-60</u>	6.5	2.7		.2		2.3	11.7		ļ		Ļ	L .					80	<u> </u>
	-	.,	-								├─							
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				Clay Front	ion Anaber	7415-4												
Depth		CIM	_{Vm} .	I	ion Analysis	7Alb-d Qtz.	K U.	Gibbeite										
Depth (in.)	Mt.	CIN.	Vm.	Mi.													-1NA	
	Mt.	CIH.		Mi.				Gibbeite A3							= chlorite, Y z. == quartz,			- mie
	Me.	сы.	74	Mi.								int. — i Rolativa	aterstratific emounts:	d layer, Qt blank = no	z. — quartz, st determine	KI. = Kad d, dash =	dinita not detect	ed,
	Sale.	Cht.	74	Mi.								int. — i Rolativa	aterstratific emounts:	d layer, Qt blank = no	z. — quartz,	KI. = Kad d, dash =	dinita not detect	ed,
	Mt.	Cist.	74	Mi.								int. — i Rolativa	aterstratific emounts:	d layer, Qt blank = no	z. — quartz, st determine	KI. = Kad d, dash =	dinita not detect	ed,
	Me.	Chi.	74	Mi.								int. — i Rolativa	aterstratific emounts:	d layer, Qt blank = no	z. — quartz, st determine	KI. = Kad d, dash =	dinita not detect	ed,
	Net.	Chi.	74	Mi.								int. — i Rolativa	aterstratific emounts:	d layer, Qt blank = no	z. — quartz, st determine	KI. = Kad d, dash =	dinita not detect	ed,
	likt.	Cini.	74	Mi.								int. — i Rolativa	aterstratific emounts:	d layer, Qt blank = no	z. — quartz, st determine	KI. = Kad d, dash =	dinita not detect	ed,

Soil Type: Dundee loam

Soil No.: D45Mi-Oll Location: Tunica County, Mississippi, about 80 rods E-NE of gin. SE 1/4, NW 1/4, Sec. 3, T 6S, R 11W

Collected by: R. W. Simonson, H. B. Vanderford, and C. B. Melton Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horizon and Beltsville Lab. No.

0 to 5 inches. Dark grayish brown (10YR 4/2) loam; weak, fine granular structure; very Ap 451412 friable; few fine roots; abrupt smooth boundary.

5 to 12 inches. Dark grayish brown (10YR 4/2) silty clay; many fine distinct mottles of strong brown (7.5YR 5/6); strong fine and medium subangular blocky structure; firm; very B21t 451413 plastic, sticky; continuous clay films on peds; gradual smooth boundary.

B22t. 12 to 20 inches. Mottled dark grayish brown (10YR 4/2) and strong brown (7.5YR 5/6) light 451414 silty clay; moderate, medium and coarse subangular blocky structure; firm; plastic, sticky; continuous clay films on peds; gradual smooth boundary.

B3g 451415 20 to 29 inches. Mottled gray (10YR 5/1), yellowish brown (10YR 5/6) and grayish brown (2.5Y 5/2) heavy fine sandy clay loam; moderate medium and coarse subangular blocky structure; firm; slightly plastic, slightly sticky; patchy clay films on peds and in pores; few fine brown black concretions; gradual smooth boundary.

29 to 43 inches. Grayish brown (2.57 5/2) very fine sandy loam; common fine distinct yellowish brown (107R 5/6) mottles; structureless; single grain; very friable; few fine brown and black concretions; gradual smooth boundary. IIClg 451416

IIC2g 43 to 60 inches. Mottled grayish brown (2.5Y 5/2) and yellowish brown (10YR 5/6) very 451417 fine sandy loam; structureless; single grain; very friable.

SOIL Nos. SOIL Nos. SSSMISS-30-1 LOCATION Jackson County, Mississippi

SOIL SURVEY LABORATORY Beltsville, Maryland LAB. Nos. 561 - 566

IL SURVEY											•							
		1816	Total						s and porti			ļ	_		I 000	T		
		-	ı .	I	l	ı	Ι.	Sand	1	Si	i 				382	2A2-	ise fragmi	ints :
Depth	Horizon	Sand	Silt	Clay	Very Coarse	Coarse	Medium	Fine	Very fine		Int. III	fnt. 🎞			١.	>- 2	2 - 19	19
(In.)		(2-0.05)	(0.05- 0.002)	(~ 0.002	(2-1)	(1-0.5)	(0.5-0.25)	6.52-0.1	(0.1-0.05)	0.05-0.02	(0.02~ 0.002)	(0.2-0.02)	(2-0.1)		Cm		×	et. of
		 -	110	1 3 0	1 0 0		J 4 2		19 5	г	8.7	L LE O				Pet.	~ ~	76mm
0-4	A1. A2		15.8 16.7	3.2	0.2	4.9 4.9	16.2	47.6 46.3	12.3 11.1		9.7	45.0 42.1				-		
4-9 9-13	Ã3		16.9	5.9	0.2	4.5	15.3	45.3	11.9		9.8	43.2				tr.		
13-17	Bl.	1	18.2	6.4	0.2	4.1	14.3	44.9	11.9		10.8	43.1						T
17-40 40-72+	B2t		17.8	6.4	0.5	4.9	14.8	45.3	10.3		12.2	39.4				tr.		
<u>40-72+</u>	C	╁─-	13.0	2.5	0.3	4.7	15.2	51.2	13.1		7.7	46.0				tr.		t
							,											┝
	6Ala							Bulk densit	,	4D1	W	fater cente	et		4C1	_	_ pH	
Depth	Organic	Nitrogen	C/N		Carbonate	Ext. Iron		4Ale	4A1h	""		481c	482		""		8Clc	80
(in.)	carbon				as CaCO ₃	as Fe		35 ber	Oven dry	3100		¾ ber	15 ber		WRD		(1:1)	a
	Pct.	Pct.	<u> </u>	<u> </u>	Pet.	Pct.	g/es	g/oc	g/00	<u> </u>	Pol.	Pet.	Pat.	<u> </u>	in/in	<u> </u>	KÇi	H;
0-4	1.12	0.047	23															5.
4-9 9-13	0.35	0.022	1			1										l		5.
9-13 13-17	0.06	0,009	\vdash	\vdash	 	\vdash	\vdash	\vdash				\vdash		1	\vdash	\vdash	\vdash	3
17-40	0.06	0.010	1			1												4.
40-72+	0.02	0.040		ļ	ļ													5.
								<u></u>										
		Fetracial	io boses !	SR1a		6Hla	e c	EC .	681d				ation to ci	<u> </u>	8D3		Bane 94	huratik
	6N2d	802b	6P2a	6Q2a		Ext.								Ť			5C3	54
Depth	24454			4455		EAL.												ı
	l <u>.</u> .	ا		ہ ا			5A3a		Ext.			CEC	Ext.	15-ber	Cs/Mg			
(in.)	Ca	Mg	Na	K	Sum	acidity	Suitt .		Ext. Al			CEC Sum	Ext. Iran	15-ber weter	Ca/Mg		Sum	NH4
	Ca ~a	Mg	Na	K	8em meg/100 (l	Sum . cations		Ext. Al						Ca/Mg		cations Pct.	1
(in.)	0.7	0.1	tr.	0.1		5.3	Sum cations		Ext. Al						Cs/Mg		retions Pct.	1
(In.) 0-4 4-9	0.7 0.1	0.1	tr.	 0.1 0.1		5.3 3.5	Sem cettore		Ext. Al						Ca/Mg		ret. 14 10	NH ₄
0-4 4-9 9-13	0.7 0.1 0.1	0.1	tr. tr. 0.1	0.1 0.1 0.1		5.3 3.5 2.9	Sem cettons 6.2 3.9 3.4		Ext. Al						Ca/Mg		ret. Pct. 14 10 15	1
0-4 4-9 9-13	0.7 0.1	0.1	tr.	 0.1 0.1		5.3 3.5 2.9 2.0 2.0	Sem cettore		Ext. Al						Ca/Mg		14 10 15 13 15	1
0-4 4-9 9-13 13-17 17-40	0.7 0.1 0.1 0.1	0.1	tr. tr. 0.1	0.1 0.1 0.1 0.1		5.3 3.5 2.9 2.0	6.2 3.9 3.4 2.3		Ext. Al						Ca/Mg		14 10 15	1
0-4 4-9 9-13 13-17 17-40	0.7 0.1 0.1 0.1 0.1	0.1 0.2 0.2 0.1	tr. tr. 0.1 tr.	0.1 0.1 0.1 0.1 0.1		5.3 3.5 2.9 2.0 2.0	6.2 3.9 3.4 2.3 2.6		Ext. Al						Ca/Mg		14 10 15 13 15	1
0-4 4-9 9-13 13-17 17-40	0.7 0.1 0.1 0.1 0.1	0.1 0.2 0.2 0.1	tr. tr. 0.1 tr.	0.1 0.1 0.1 0.1 0.1 tr.		5.3 3.5 2.9 2.0 2.2 0.8	6.2 3.9 3.4 2.3 2.6		Ext. Al						Ca/Mg		14 10 15 13 15	1
0-4 4-9 9-13 13-17 17-40 60-72+	0.7 0.1 0.1 0.1 0.1	0.1 0.2 0.2 0.1	tr. tr. 0.1 tr.	0.1 0.1 0.1 0.1 0.1 tr.	mag/100 g	5.3 3.5 2.9 2.0 2.2 0.8	6.2 3.9 3.4 2.3 2.6	Gibbaths	Ext.						Ca/Mg		14 10 15 13 15	1
0-4 4-9 9-13 13-17 17-40 hO-72+	0.7 0.1 0.1 0.1 0.1	0.1 0.2 0.2 0.1 0.1 0.2	tr. tr. 0.1 tr. 0.1 tr.	O.1 O.1 O.1 O.1 tr.	mag/100 g	5.3 3.5 2.9 2.0 2.2 0.8	5.em cations 6.2 3.9 3.4 2.3 2.6 1.1		Ext.			Sum	Ireo	water		m. – Verm	cations Pet. 14 10 15 13 15 27	Pc
0-4 4-9 9-13 13-17 17-40 hO-72+	0.7 0.1 0.1 0.1 0.1	0.1 0.2 0.2 0.1 0.1 0.2	tr. tr. 0.1 tr. 0.1 tr.	O.1 O.1 O.1 O.1 tr.	mag/100 g	5.3 3.5 2.9 2.0 2.2 0.8	5.em cations 6.2 3.9 3.4 2.3 2.6 1.1	Gibbatta 43——	Ext. Al			Sum	ires	mite, Chi.	chlorite, V		cations Pet. 14 10 15 13 15 27	Pe
0-4 4-9 9-13 13-17 17-40 40-724	0.7 0.1 0.1 0.1 0.1	0.1 0.2 0.2 0.1 0.1 0.2	tr. tr. 0.1 tr. 0.1 tr.	O.1 O.1 O.1 O.1 tr.	mag/100 g	5.3 3.5 2.9 2.0 2.2 0.8	5.em cations 6.2 3.9 3.4 2.3 2.6 1.1		Ext.			Sum Str. — N Int. — In	ires	mite, Chi. — d layer, Qtr	chierite, V	Ki, — Kaol d, dash —	cations Pet. 14 10 15 13 15 27	= rei
0-4 4-9 9-13 13-17 17-40 40-724	0.7 0.1 0.1 0.1 0.1	0.1 0.2 0.2 0.1 0.1 0.2	tr. tr. 0.1 tr. 0.1 tr.	O.1 O.1 O.1 O.1 tr.	mag/100 g	5.3 3.5 2.9 2.0 2.2 0.8	5.em cations 6.2 3.9 3.4 2.3 2.6 1.1		Ext.			Sum Str. — N Int. — In	ires	mite, Chi. — d layer, Qtr	chierite. V	Ki, — Kaol d, dash —	cations Pet. 14 10 15 13 15 27	= rei
0-4 4-9 9-13 13-17 13-10 10-72+	0.7 0.1 0.1 0.1 0.1	0.1 0.2 0.2 0.1 0.1 0.2	tr. tr. 0.1 tr. 0.1 tr.	O.1 O.1 O.1 O.1 tr.	mag/100 g	5.3 3.5 2.9 2.0 2.2 0.8	5.em cations 6.2 3.9 3.4 2.3 2.6 1.1		Ext.			Sum Str. — N Int. — In	ires	mite, Chi. — d layer, Qtr	chierite, V	Ki, — Kaol d, dash —	cations Pet. 14 10 15 13 15 27	= rei
0-4 4-9 9-13 13-17 13-10 10-72+	0.7 0.1 0.1 0.1 0.1	0.1 0.2 0.2 0.1 0.1 0.2	tr. tr. 0.1 tr. 0.1 tr.	O.1 O.1 O.1 O.1 tr.	mag/100 g	5.3 3.5 2.9 2.0 2.2 0.8	5.em cations 6.2 3.9 3.4 2.3 2.6 1.1		Ext.			Sum Str. — N Int. — In	ires	mite, Chi. — d layer, Qtr	chierite, V	Ki, — Kaol d, dash —	cations Pet. 14 10 15 13 15 27	= rei
0-14 14-9 9-13 13-17 13-10 10-72+	0.7 0.1 0.1 0.1 0.1	0.1 0.2 0.2 0.1 0.1 0.2	tr. tr. 0.1 tr. 0.1 tr.	O.1 O.1 O.1 O.1 tr.	mag/100 g	5.3 3.5 2.9 2.0 2.2 0.8	5.em cations 6.2 3.9 3.4 2.3 2.6 1.1		Ext.			Sum Str. — N Int. — In	ires	mite, Chi. — d layer, Qtr	chierite, V	Ki, — Kaol d, dash —	cations Pet. 14 10 15 13 15 27	- ra

4934-903-8747871LLE, NO. 184

Soil Type: Eustis loamy sand Soil No.: 855Miss-30-1

Location: Jackson County, Mississippi, NW 4, SE 4, Sec. 16, T 5S, R 5W, 2 1/2 miles S. Hurley.

Vegetation: Scrub oak and longleaf pine

Horizon and Beltsville Lab. No.

O to 4 inches. Very dark gray (10YR 3/1) very friable loamy sand, weak medium crumb 561 structure; many roots and some earthworm casts; clear smooth boundary; very strongly

4 to 9 inches. Dark grayish brown (10YR 4/2) with common fine distinct mottles of yellowish brown (10YR 5/4) very friable loamy sand, moderate medium crumb structure; A2 562 many roots and some worm casts; gradual smooth boundary; very strongly acid.

9 to 13 inches. Light yellowish brown (10YR 6/4) with few fine distinct mottles A3 563 of very dark gray (10YR 3/1) very friable loamy sand; weak medium subangular blocky structure; some roots; gradual smooth boundary; very strongly acid.

Bl 13 to 17 inches. Yellowish brown (10YR 5/6) very friable loamy sand; weak fine and 564 medium subangular blocky structure; some roots; gradual smooth boundary; very strongly acid.

17 to 40 inches. Strong brown (7.5YR 5/6) with few fine distinct mottles of very pale brown (10YR 7/3) very friable loamy sand; weak, fine and medium subangular blocky structure; some roots; gradual smooth boundary; very strongly acid. B2t 565

40 to 72+ inches. Reddish yellow (7.5TR 6/6) with many medium prominent mottles of very pale brown (10TR 7/3) loose loamy sand; single grain; very strongly acid. 566

SOIL	SURVEY	LABORATORY	Lincoln, Nebr.	December	1958
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SOIL TYPE Futaw LOCATION Jasper County, Mississippi silty clay loam

SOIL NOS. S58Mss-31-1 LAB. NOS. 8269-8274

\$1110000001 ##*P	***************************************	11	la	PARTI	CLE-SIZ		UTION (in			381		**************************************
DEPTH INCHES	HORIZO:	VERV		MEDIUM SAND	FINE SAHD	VERY FINE SAND	SILT	CLAY			2A2 > ?	TEXTURA CLASS
	1	2-1	1-G,5	0.5-0.25	0.25-0.10	0, 10-0, 05	0.05-0.002	< 0.002	0.2-0.02	Q02-Q002		L
0-2	All	0.3a	1.5a	1.8a	1.6a	2.0a	45.1	47.7	13.7	33.5	_	sic
2-6	Al2g		1.5a	1.8a	1.5a	2.0a	44.1	48.7	12.5	33.7	-	sic
6-17	Al3g		1.8a	2.2a	1.5a	1.6a	36.2	56.4	11.2	26.6	Tr.	c
7-34	ACE		2.26	1.9c	1.4c	1.8c	28.0	62.8	9.1	20.7	4	c
4-46 6-72	CTE .		1.50	1.7c	1.3c	1.40	26.2 32.6	67.3 59.6	8.2 8.9	19.5 27.2	Tr. Tr.	C
U- (Æ	C2g	+•+0	1.15	1.00	1.2c	3.1c	J2.0	79.0	0.9	-1.6	±±±**	
	e PH	***************************************	ORG	MIC MA	TTER	Free		6ELs		ENSITY	WATE	
8¢la				6Bla		Iron		CoCO ₂	HAla	^ ~	mi - 5 f	432
	1,5	1:10	ORGANIC CARBON	NITRO-	C/N	Fe ₂ 03%	!	aquiv-	Field State	О. В.	Field State	-
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5.4				0.216	18	1.8		}				20.9
+•7				0.11.9	1_7 -	2.1	1	1	•			20.3
֥5	1			0.032	15	2.1	1	Ì	1.25	i		21.7
7.6	1			0.011		2.2		l _	0	L		24.1
7.6	1		0.18			2.0 3.2		7 30	1.38			25.5 23.2
7.6			0.01			J•2			1.70			
5A]a	L	EXTRAC	TABLE	CATIONS		BASE SAT.	503	5Bla	5A3a	Ca/M	******.##0101644	
CHANGE	6N2b	602ъ	6нца	612a	692a	*	Dese	Sum	Sum		ſ	
NH, AC	Co .	Mg	н	No	K	NH4AC EXCH		Bases	Cation	s		1
mitter.	- '	millic quiv	i alonte per	167g, sai	: 	501	on Sum Cations	←-ma/	/100# -?	813	<u>.</u>	; !
39.2	30.0	3.2	15.8		0.5	86	68	33.7		9.4		
34.8	22.3	2.5	19.4	0,1	0.3	72	56	25.2	44.6	8.9		
36.0	25.8		16.8	0.1	0.2	77	62	27.7	44.5	16.1		
43.2		1.9	<0.1	0.2	0.4		1	1	ļ	1		
46.8	1	2.4	1	0.6	0.4		İ	1	1	İ		1
33.9	1	2.4	Í	1.3	0.4	Ī	Ī	đ	1	1		ł
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	<u>j</u>			1] .	l]		J	t	‡ į	1
а.	Common				wn to	black c	oner. (E	e-Mn	7			1
ъ.	Many	CaCO3	coner.		<u> </u>		1	<u> </u>	<u> </u>	1001-		(Em 14-
ç.	Many Semble	CaCO3 B take	e ner. n betw	e n th	k Kerr	and AC	th light 2 horiz	orov	T 700 (THER C	DECT.	Ore-Mu
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Soil Type: Butaw silty clay loam

Soil Nos.: S58Miss-31-1

Iocation: 0.6 mile south of (Newton County, Mississippi) line on Highway 15, 140 feet west of road (in woods).

NE 1/4 SW 1/4, Sec. 3, T4N, Rlls.

Area: Jasper County, Mississippi. Use: Mixed hardwoods and pine. Relief: Level (Gilgai relief). Drainage: Poorly drained. Parent Material: Marly clays.

Ground Water: Deep.

Moisture: Soil was moist to wet when samples were taken.

Root Distribution: Good.

Collected by: J. S. Allen, K. W. Flach, and Y. H. Havens, May 23, 1958. Described by: Y. H. Havens.

Horizon and Lincoln Lab. No.

8269

O to 2 inches. Black (10YR 2/1) silt loam; weak fine granular structure; friable them moist, slightly plastic, slightly sticky when wet; many fine roots, root channels and wormholes filled with gray (10YR 5/1) silty clay loam; gradual smooth boundary.

A12g 3270

2 to 6 inches. Gray (10YR 5/1) and dark gray (10YR 4/1) silty clay loam; moderate fine granular and weak fine subangular blocky structure; friable when moist, plastic and sticky when wet; many fine roots; few manganese concretions; gradual wavy boundary.

A13g 8271

6 to 17 inches. Gray (10YR 6/1) silty clay to clay with many fine and medium distinct yellowish brown (10YR 5/8) and brownish yellow (10YR 6/8) mottles; moderate fine and medium angular and subangular blocky

concretions and few scattered weak slickensides in lower part of horizon; clear wavy boundary.

17 to 34 inches. Light clive brown (2.5Y 5/4) clay with many fine and medium distinct yellowish brown (10YR 5/8) and few fine prominent gray (5Y 6/1) mottles; slickensides break to moderate very fine to medium angular blocky and subangular blocky peds; few lime nodules and few fine roots; friable when moist, very plastic and very sticky when wet; gradual wavy boundary. ACg 8272

34 to 46 inches. Light olive brown (2.5Y 5/4) clay with many fine and medium distinct and prominent brownish yellow (10YR 5/6) yellowish brown (10YR 5/8) and gray (5Y 6/1) mottles; many slickensides which break into moderate very fine and medium angular blocky and subangular blocky peds; friable when moist; Clg 8273 very sticky and very plastic when wet; many lime nodules; few fine roots; abrupt irregular boundary.

46 to 72 inches. Mattled yellowish brown (10YR 5/8) gray (10YR 6/1) and light gray (10YR 7/1) clay; mottles are many coarse distinct and prominent; large slickensides break to moderate very fine and medium angular blocky and subangular blocky peds; friable when moist, very sticky and very plastic when wet; many lime nodules; few fine roots and old root channels; many large slickensides. C2g 8274

Remarks: Thin covering of leaves and straw on surface. Boundary between Al3g and ACg horizons clear and wavy to irregular. Alkaline or lime pockets (10 inches in diameter) appear in one end of pit in Al3g horizon. Old root channels and wormholes filled with gray clay (10YR 6/1). Slickensides are more prominent in ACg and Clg horizons than in C2g horizon. Bottom of Al3g horizon in pit ranges in depth from 18 to 43 inches. The Al3g and C2g horizons were sampled for the Bureau of Public Roads.

OIL SURVEY LABORATORY Lincoln, Nebr. December 1958

SO!L TYPE Butaw LOCATION Monroe County, Mississippi silty clay loan (deep phase)

SOIL NOS. S58M1ss-48-1 LAB. NOS. 8200-8207

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DEPTH INCHES	HCRIZON	VERY COARSE SAND	COARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	Cl.AY			2A2 > 2	TEXTURA CLASS
	- 1	2-1	1-0.5	0 5.0.25	0. 25-0. 10	0.10-0.65	0.05-0.002	< 0.002	0 2-0.02	092-09 02		İ
0-1	All.	0.2a	0.7a	0.6ъ	о.8ъ	5.1b	51.6	41.0	29.8	27.0	_	sic
1-5	A12		0.65	0.60	0.76	5.2b	46.5	46.2	26.8	25.0	-	sic
5 •9	ACg	0.la	0.4a	0.46	0.60	4.0ъ	43.2	51.3	24.0	23.4	-	sic
9-21	Clg	0.2a	0.2a	0.3ъ	0.4ъ	2.8b	36.6	59.5	18.6	20.8	-	c
21-41	C2g		0.2a	0.2ა	0.45	2.8b	36.2	60.1	18.4	20.7	-	ļe
41-58	C3g		O.la	0.2b	0.85	2.4p	37.5	59.0	18.1	22.3	-	c
58-72	Clig.		0.la	0.2b	0.85	2.3b	39•7	56.8	19.8	22.7	-	e
72-82	C5g	<0.1	0.la	0.2b	1.00	2.76	40.0	56.0	20.4	22.9	-	sic/c
	1				'							
	Hç	1942 - 1 50 054 +0 5 14 6 4		NIC MA		Free	200001171042911117494	7,1611:6354444	BÜİK İ	ENSITY	WATER	RETEN
8Cla			6Ala	6Bla		Lron			4Ala	4Alh	4.13/4	4B2
			ORGANIC	NITRO-	-4	Fe ₂ 03%		CoCO3	Field	0. D.	Field	15
	1,5	1:10	CARBON		CM			d) and	State		State	Bar
<u>!:!</u>			<u>% c</u>	%		6Cla			g/cc	g/cc		,%. <u></u> .
4.8				0.223	17	1.4					_	16.9
4.4	İ .			0.075	14	1.4 1.4			1.5	1.69	8	17.5
4.3 4.3				0.033 0.015	13	1.2			1.42	1.72	21	18.9
4.4]]			0.007		1.0			1.36	1.78 1.78	34 32	22.0
4.4	(0.10	0.007		1.2			1.50	1.84	23	21.9
4.6			0.10			2.0			1.52	1.88	27	20.1
6.6			0.06			2.2			1.7	1.90	- 8	20.1
										/-	_	
		EXTRAC	TARLE	CATIONS		BASE	503	5Bla	 5A3a	Ca/Ng	; as42)=121141,3 1616 4	
5Ala CATION	6 N2 b		била.	6P2a	602a	SAT.	Base	Sum	Sum	<u> </u>		•
CATION XCHANGE APACITY	OWED	602ъ			_	NH4Ac		Bases	Cation	s		
NH _{),} Ac	Co	Mg	н	No	K	EXCH.	on Sum					•
<u>. 4</u>		millicaviv	clairs per	100g. so:			Cations			8 D 3] -
28.9	14.7	4.3		0.1	0.5	68	50	19.6	38.9	3.4		1
28.6	6.1	2.2	28.9	0.1	0.3	30	23	8.7	37.6	2.8		•
. کدا?	[μ, <u>3</u>]	2,1	34-3	0.1	_ വച	22 _	ا ا	6.8	41.1	2.0		<u>; </u>

Soil Type: Butaw silty clay loss

Soil Nos.: S53Niss-48-1

Location: 465 feet south and 165 feet east of the northwest corner of the NW 1/4 of the NE 1/4 of Sec. 7, T158, NYE.

3.5 miles east of the cross roads in Prairie, Mississippi, and 465 feet south of Highway 382. Area: Monroe County, Mississippi. Photograph NG-3F-93.

Use: Was cleared of post oak and mixed hardwoods within last five years, but it was not cultivated.

Relief: Nearly level (Gilgai relief).

Drainage: Poorly drained.

Parent Material: Acid clays over marl.

Ground Water: Deep.
Moisture: Soil was moist to wet when sampled.

Root Distribution: Good.

Collected by: J. S. Allen, K. W. Flach, and Y. H. Havens, May 19, 1958. Described by: Y. H. Havens.

Horizon and Incoln Lab. No.

11,

All 8200 O to 1 inch. Very dark gray (10YR 3/1) silty clay loam; weak fine granular structure; friable when moist;

slightly plastic when wet; many fine roots; abrupt smooth boundary.

1 to 5 inches. Crayish brown (2.5Y 5/2) silty clay loam with common fine distinct yellowish brown (10YR 5/8) and brownish yellow (10YR 6/6) mottles; weak to moderate fine subangular blocky structure friable when moist; slightly plastic when wet; many fine roots; many old root and worm channels filled with material from layer above; abrupt smooth boundary. A12 8201

5 to 9 inches. Mottled light yellowish brown (2.5Y 6/4) olive yellow (2.5Y 6/6) gray (5Y 6/1) and brownish ACg

subangular and angular blocky structure; friable when moist, very plastic and very sticky when wet; many fine and coarse roots; clear wavy boundary.

വള 8203 9 to 21 inches. Gray (5Y 6/1) clay with many fine prominent brownish yellow (10YR 6/8) mottles; moderate to strong very fine and fine subangular and angular blocky structure; friable when moist, very plastic and very sticky when wet; common fine roots; gradual wavy boundary.

21 to 41 inches. Hight gray (5Y 7/1 and 7/2) clay with many fine prominent brownish yellow (10YR 6/8) mottles; moderate to strong very fine to medium subangular and angular blocky structure; friable when moist, very plastic and very sticky when wet; numerous slickensides (up to 2 inches in size); fine roots are common; gradual wavy boundary.

03g 8205 41 to 58 inches. Mottled light yellowish brown (2.5Y 6/4) and gray (5Y 6/1) clay; mottles are many, fine and medium and distinct; moderate to strong fine to coarse angular blocky structure; numerous large slickensides that break into fine and medium angular and subangular blocky peds; friable when moist, very sticky and very plastic when wet; fine roots along ped faces; few coarse roots; root channels filled with bluish gray (10BG 5/1) clay; gradual irregular boundary.

SOIL	SURVEY	LABORATORY	Lincoln, Nebr.	December 1958

SOIL TYPE Butaw LOCATION Monroe County, Mississippi silty clay loam (deep phase)

SOIL NOS. \$58Mss-48-2 LAB. NOS. 8208-8214

		1 <u>B</u> l	a		,	E DISTRIE				_3A1		4
DEPTH INCHES	PIORIZON	VERY COARSE SAMD	COARSE SAUD	MEDIUM SANO	FINE SAND	VERY FINS SANO	SILT	CLAY			2A2 > 2	TEXTURA CLASS
		2-1	1 0,5	0.4-0.25	0.75-0.10	9 10-0 25	0.05-0.002	< 0.002	0.2-0.02	002-0003	<u>:</u> :	
0-1	All	0.9a	1.2a	0.8b	3.0c	5•3c	54.8	34.0	32.5	29.4	Tr	sicl
1-5	Ale		0.60	0.8b	2.60	5.7c	50.9	39.2	32.7			sicl
5-11	ACg		0.46	0.6b	2.lc	4.6c	45.7	46.5	28.6	22.9	_	sic
1-27	വ്ള		0.25	0.36	0.6c	3.9c	37.8	57.2	21.8		_	c
7-37	CSE		0.36	0.30	1.3c	3.0c	38.1	56.8	21.1	20.8	_	c
17-53	C3g		0.3b	0.46	0.6c	2.40	40.7	55.5	20.4	22.7		sic
3-65+	CHg	•	0.20	0.36	1.3c	3.0e	40.2	55.0	20.8	23.2	-	sic
86478637# 60007 0*0	eH	19616Elsef767911/4		MIC WA		Free	; 	599	BULK	DENSIT	ም ህ ልጣት	r rete
8Cla	[6Ala	6Bla	i	Iron			4Ala		4B4	4B2
COLG	!			NETRO-	1		ļ	CaCO ₃		0.D.	rield	15
	1:5	7:10	CARUON		C/N	·Fe ₂ 03%	:	equiv-	State		State	Bar
1:1			95	75	•	6cla		%	g/cc	_g/cc		%
5.3			8.25	0.502	16	1.1	i		ļ	[20.1
4.3	1			0.084	13	1.4	•]	ļ.		15.1
4.3				0.042	10	1.7	1	i	1	l		17.7
4.3	1			0.015	1	1.8		Ì	1.45	1.74	23	21.9
4.5]		0.07	0.010		1.5			1.44	1.86		21.0
4.4			0.08			1.4	1	Ī	1		29	20.4
4.4			1		İ			Ī	1.52	1.90	26	20.6
4.2			0,09		İ	1.5	į.	Į	1.5	1.89	29	20.0
										1	•	
manumum 5Ala	* (*# 7690) **********	EXTRAC	TASLE	CATIONS	5Bla	BASE	¹ 503	5Bla	5A3a	Ca/Mg	ipsotszadátokitál I	1,72************************************
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XCHANGE APACITY	1				i	NH4Ac		Beses	Cation	18	l	1
NH _l ,Ac	Co	Ma	H	Mo	K	EXCH.	on Sum				1	
		ellle july	clents per	Mg sol	ز۔ ۔۔۔۔ ا	5C1	Cations	, < me/	100g->	813		
29.2	20.4	5.2	23.7	0.1	0.6	90	53	26.3	50.0	3.9		
21.6	6.2	2.2		<0.1	0.2	40	27	8.6	31.6	2.8	ţ	
	4.4	1.9	28.0	0.1	0.2	28	19	6.6	34.6	2.3	1	1
23.2	1		ŧ.		Ŧ	35	26	10.4	40.7	3.3	1	1
29.5	7.7	2.3	30.3	0.1	0.3				42.3	4.2		
30.5	11.8	2.8	27.0	0.4	0,3	50	36	15.3			Ī	I
29.5	16.3	3.4	20.7	0.8	0.3	70	50	20.8	41.5		į	1
29.2	20.2	4.0	15.2	1.0	0.3	87	63	25.5	40.7	5.0	ţ	1
						Are also terrangente					-	Ī
8.	Some c	rganic	matte	r. Al	80, me	cny smo	oth blac	k_to	erk b	own co	mer.	(Mn-Fe
ъ.	Commor	smoo	th bla	ck to	dark t	iroms co	per. (M		1	1	İ	1
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c.						in concr	(Mn-I		1	1	1	ľ

Soil Type: Eutaw silty clay loam

Soil Nos.: 558Mss-48-2 Ideation: 160 feet east and 165 feet south of the northwest corner of NW 1/4 of the NE 1/4 of Sec. 4, T168, R7E.

6 miles due east of Highway 45W at Maldon and 165 feet south of local road. Photograph NG-3F-55.

Area: Monroe County, Mississippi. Use: Mixed hardwood - post oak, hickory, red oak. Relief: Nearly level (Gilgai relief).

Drainage: Foorly drained.

Parent Material: Acid clay over marl.

Ground Water: Deep.
Noisture: Soil was moist to wet when sampled.

Root Matribution: Good. Collected by: J. S. Allen, K. W. Flach, and Y. H. Havens, May 19, 1958. Described by: Y. H. Havens.

Horizon and Lincoln Lab. No.

0 to 1 inch. Very dark grayish brown (DYR 3/2) silty clay loam; weak fine granular structure; friable 8208 when moist; slightly plastic when wet; many fine roots; abrupt smooth boundary.

l to 5 inches. Mottled brownish yellow (10YR 6/8) light brownish gray (2.5Y 6/2) silty clay loam; weak to moderate fine subangular blocky structure; friable when moist; slightly plastic and slightly sticky when wet; many fine roots; many old root and worm channels filled with material from layer above; abrupt 8209 smooth boundary.

5 to 11 inches. Mottled light brownish gray (2.5Y 6/2) yellowish brown (10YR 5/8) and brownish yellow (10YR 6/8) silty clay; moderate fine subangular blocky structure; friable when moist, very plastic and very sticky when wet; many fine roots, few large roots, few old root channels; clear smooth boundary.

ll to 27 inches. Gray (5Y 6/1) clay with many fine and medium distinct and prominent yellowish brown (10YR 5/8) and few red (10R 5/8) mottles; moderate to strong fine to medium subangular blocky structure; friable when moist, very sticky and very plastic when wet; many fine roots, few large roots, few old root channels; gradual wavy boundary.

SOIL	SURVE	Y LABORATOI	RY Lincoln,	Nebr.	December 1958	
SOIL	TYPE	Eutaw silty clay loam	LOCATION	Newton	County, Mississip	p <u>i</u>
	SOIL NOS.	858Miss-51 - 1	LAB.	NOS.	8275-8281	·······

ì		131	<u>a</u>	PARTI	CLE-SIZ	E DISTRIE	UTION (in	ann.) (pr	F COM)	.3A1		
DEPTH INCHES	HORIZON	VÉRY COARSE SAND	COARSE SAND	WEDIOW	FINE SAND	VERY FINE SAND	SILT	A1 A 11		_	2A2 > 2	TEXTUR CLASS
•		JANG		SAND				CLAY			7 2	[
		2-1	1-6.5	0.5-0.25	0. 25-0. 10		0.05-0,002	< 0.002		0.72-0.002		
0-2	All		0.7a	0.5a	0.62	1,52	53.6	42.2	18.6	36.6	-	sic
2 - 5	Al2		0.9a	0.6a	0.6a	1.8a	52.5	43.3	18.6	35.7	-	sic
5-14	Al3g		0.7a		0.5a	1.la	44.3	52.6	14.7	30.8	-	sic
4-22	ACg		0.3a	, ,	0.3a.	O.4a	27.5	71.1	8.7	19.3	-	C
2-32	Clg		0.3a	0.2a	0.3a	0.7a	32.8	65.6	10.9	22.7	-	C
2-40	C2g		0.3a	0.2a	0.3a	0,8a	33-3	65.0	11.3	22.9	-	C
0-59	C3g	0.4a	0.6a	0.4a	0.3a	0.9a	37+1	60.3	10.6	27.4	Tr.	C
964E9 184 99 4999 1 7084	mmummi PH	1001.014.1911 110.>>>40	ORGA	NIC MA	TTER	mmenuman Free	19 00 0+11410011+4440	6Ela		ensity	 Water	HRTER HERTER
Cla			6Ala			Iron			- v		114	4B2
	1,5		ORGANIC CARBON	NITRO-	C/N	Fe ₂ 0 ₃ %		CoCO3 equiv- elent	Field State	O. D.	Field State	15
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5.4	!		7.83	0.416	19	1.8		;				22.9
5.1			2.52	0.174		2.3						19.4
4.7			0.86			2.3				ł	:	20.5
4.4			0.23	0.012		2.5					•	26.9
4.7			0.19	0.011		2.4			1	1		25.2
5.6			0.19			2.3]		i I			24.6
7.6			0.18			2.3		2	,			24.8
5Ala.	48864407844478 0 00	EXTRAC	TAN E	CATIONS	5Bla		5C3	5Bla	5A3a	ourmannen	444447 (****************	
CATION	6N26				602a	SAT.	Base	Sum	Sum	Ca/Mg		į
CHANGE PACITY HLAC	င	Mg	н	No	ĸ	NH4AC EXCH.	Sat. % on Sum		Cation			
	•		alunts per	1003. 80	·—·	5C1	Cations			8 1 3.		ļ
41.8	30.8		18.6	0.1	0.6	86	66	36.1		6.7		1
33.1	20.6		16.5	0.1	0.4	76	60	25.0	41.5	5.3		}
33.4	18.4	3.9	18.1	0.2	0.4	68	56	22.9	41.0	4.7		1
14.9	29.2	4.6	19.4	0.6	0.4	78	64	34.8	54.2	6.3		1
+3.5	31.2	4.3	14.0	0.8	0.5	84	72 88	36.8	50.8	7.2		1
12.6	37.6	5.1	6.3	1.2	0.4	104	88	44.3	50.6	7.4		1
+4.6		5.9		2.2	0.4		}					1
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Soil Type: Entaw silty clay loam

Soil Nos.: S58Miss-51-1
Location: SW 1/4 SE 1/4, Sec. 2, T5N, RIOE. 2.1 miles south of Lawrence, Mississippi, on Highway 505, 200 feet west of road in woods, Newton County, Mississippi.

Relief: Level (dilgai relief). Drainage: Foorly drained. Parent Material: Marly clays.

Ground Water: Deep.

Moisture: Soil was moist to wet when sampled.

Root Distribution: Good.

Collected by: J. S. Allen, K. W. Flach, and Y. H. Havens, May 23, 1958. Described by: Y. H. Havens.

Horizon and Lincoln Lab. No.

O to 2 inches. Black (10YR 2/1) silt loam; weak fine granular structure; friable when moist, slightly 8275 plastic, slightly sticky when wet; few manganese concretions; many fine roots; abrupt smooth boundary.

873 Jank www. (INVP 2/L) atthy alow loam, Amiable when majet intestic and sticky when

8276 wet; moderate fine granular and weak fine subangular blocky structure; many fine roots, few coarse roots; few mangamesee concretions; abrupt wavy boundary.

5 to 14 inches. Gray (10YR 5/1) silty clay or clay with common fine distinct strong brown (7.5YR 5/6) A13g 8277 mottles; moderate to strong fine and medium subangular blocky structure; friable when moist, very plastic and very sticky when wet; common fine roots; abrupt irregular boundary.

14 to 22 inches. Mottled gray (10YR 6/1) yellowish brown (10YR 5/8) and light yellowish brown (10YR 6/4) ACg 8278 clay; mottles are many, fine, medium and distinct; weak to moderate fine and medium angular and subangular blocky structure; friable when moist, very plastic and very sticky when wet; few thin (weak) slickensides; few fine manganese concretions; roots are common; clear wavy boundary.

22 to 32 inches. Mottled gray (10YR 6/1) and yellowish brown (10YR 5/8) and strong brown (7.5YR 5/6) clay; mottles are many, medium to coarse, and distinct; numerous slickensides present which break into weak to moderate fine to coarse angular blocky peds; friable when moist, very plastic, very sticky when Clg 8279 wet; common fine roots; gradual wavy boundary.

62g 8280 32 to 40 inches. Mottled pale clive (5Y 6/4) yellowish brown (10YR 5/8) gray (6/0) and light gray (7/0) clay; massive structure with large slickensides which break into weak fine angular blocky peds; very plastic and very sticky when wet; many lime nodules; few fine roots, root channels filled with gray (5Y 6/1) clay; clear wavy boundary.

40 to 59 inches. Light clive brown (2.5Y 5/4) clay with few fine prominent gray (10YR 6/1 and 5/0) C3g 8281 mottles; massive structure with large slickensides, faces of slickensides are light clive brown (2.5Y 5/4); many lime nodules, few manganese concretions; very plastic and very sticky when wet; few fine roots.

Remarks: This soil has a thin covering of leaves, twigs, and straw. Gray clay (5Y 6/1) along big roots and old root channels. Depressions are grayer in color, ridges have higher degree of yellow mottles. Lime nodules and carbonate vary in depth from 24 to 42 inches in open pit. High calcium horizon at 68 inches. The Al3g, Clg, and C3g horizons were sampled for the Bureau of Public Roads.

	SOIL	SUR	VEY	LAB	ORA"	TORY	Linco	ln,Nebr		+-40 	Augua	t196	2
			E Fall	mer	**********			T. N.T					
				t loan								ŧ	
	80	IL NOS.	•	S61M1s	1370 . -1	· · ·	***************	LAB.	NOS.	1519	9-1520	7	
				Pla	PART	CL E- SIZ	E DISTRIE	SUTION (in	mm.) (pe	r cent)			mennamentur
	DEPTH INCHES	HORIZON	VERY COARSE SAND	COARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY			2A2 > 2	TEXTURAL CLASS
	0- 1	Al	2-1	1-0.5	0,5-0.25	1 ;		0.05-0.002 78.4	< 0.002 16.9				043
7	2-5	A2		0.70			1.40	82.5	14.0		41.6	-	sil sil
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Soil Type: Falkmer silt loam Soil Nos.: S51Miss-70-1

Ideation: Tippah County, Mississippi, 22 miles south of Elue Mountain on State Highway 15 about 1,000 feet east of highway. NEL/4, Sec. 19, T5S, R3E.

Vegetation and Use: Hardwood forest.

Slope and Land Form: Rearly level (1 percent slope).

Drainage and Permeability: Somewhat poorly drained with slow to medium surface runoff and slow internal drainage.

Permeability is moderate in the upper part of solum and very slow in the D.

Parent Material: Thin loss over Coastal Flain clays.
Collected by: J. S. Allen and Dean C. McMurtry, Jr., May 19, 1961.
Described by: W. E. Bright and R. C. Carter, May 19, 1961.

Horizon and Lincoln lab. No.

02 to 0 inch. Oak leaves.

0 to ½ inch. Very dark gray (10YR 3/1) silt losm; weak fine granular structure; friable; common fine

15199 and medium roots; abrupt wavy boundary.

 $\frac{1}{2}$ to 5 inches. Dark grayish brown (10YR $\frac{1}{2}$) silt loss; weak fine and medium granular structure; friable; common fine and medium roots; few fine manganese concretions; root and worm holes filled with material 15200

from Al; clear smooth boundary.

B2lt 5 to 14 inches. Yellowish brown (10YR 5/6) light silty clay loss; moderate fine and medium subangular 15201 blocky structure; friable; slightly plastic; few fine roots; few fine black concretions; clear smooth

14 to 18 inches. Yellowish brown (10YR 5/4) silty clay losm with many fine faint and distinct mottles of light gray to gray (10YR 6/1) and brown to dark brown (7.5YR 4/4); moderate fine subangular blocky B22t 15202

structure; plastic; friable; few fine and medium roots; clear smooth boundary.

18 to 24 Inches. . Myttled 31tht may to may 100% 6/1) well-mitch hymen (100% 6/4) and hymen to davir

Tr ,...

blocky structure; friable; plastic; few fine roots; few fine soft black concretions; clear smooth boundary.

IIB24tg 15204

24 to 26 inches. Gray (10YR 5/1) heavy silty clay loss with many fine distinct mottles of yellowish brown (10YR 5/4); moderate very fine and fine subangular blocky structure; friable; plastic; few fine

silt loam

SOIL TYPE Falkner LOCATION Tippah County, Mississippi

SOIL NOS. S61M188-70-2 LAB. NOS. 15208-15215

· · • • • • • • • • • • • • • • • • • •	######################################	1Bl					UTION (in			3A1		***************************************
DEPTH INCHES	HORIZON	VERY COARSE SAND	COARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY			2A2 > 2	TEXTURAL CLASS
	!	•	1.0.5				0.05-0.002	< 0.002	0 0 0 00	002-0.002	-	
	======	2-1		****	2.4						**	
0-3	Al	0.7a	2.2a	1.6		1.8	77.7	13.6		44.3	-	sil
} -6	A2	1.1b	1.50	1.2 0		1.1c	76.2	17.5	35.8	42.1	-	sil
6-12	B2lt	0.2b	0.95	0.9ъ	0.9c	0.9c	66.5	29.7	29.7	38.1	-	sicl
12-18	B22t	0.7b	1.50	0.95		1.0c	70.0	24.8	31.4	40.1	-	sil
18-23	B23tg		0.56	0.6c		1.0c	63.5	33.5			-	sicl
23-28	See	0.1ъ	0.4ъ	0.50	0.7đ		50.9	46.6		29.8	-	sic
28-41	Desc.	0.25	0.5c	0.60	0.7 a	0.84	51.9	45.3	24.4	28.6	-	sic
41-61	IIC2g	0.2c	0.60	0.8c	1.0d	1.2d	57.1	39.1	26.0	32.8	-	sicl
1			1									
in minimum.	_		inic Ma		1010001202022		k Densit				URE TE	NSIONS
8Cla	8Clc	6Ala	6Bla	0002	 -		1 1011011	<u> </u>		-	4C1	4B2
H ₂ 0	KCl	0.C.	N	C/M	Field	Moist	30	cm.	A.D.	# /3 3b	/3-to	15
				-, -		4Ala		4Alc		Atmos. Pieces	1.5-Atm	ATMOS.
1:1	1:1	%	5		想.	g/cc	4B3 _M .	g/cc	HAID B/CC	rieces	in/in	
5.2	4.7		0.380	23							, , , , , , , , , , , , , , , , , , , ,	14.3
4.9	4.0		0.102	14				! .				7.9
4.8	3.4		0.032	1,0	24.3	1.38	30.8	1.34	1.42	26.6	.19	12.5
4.5	3.5		0.030					‡ •				10.5
4.6	3.1	0.14	0.025					į				14.3
4.2	2.9		0.027							_		20.5
4.0	2.8	0.10	1		26.7	1.46	30.8	1.36	1.88	30.8	.14	20.6
3.9	2.8	0.09	1	Ì				İ	ĺ			19.3
Ì								į				
5Ala			TABLE			Bla	Bo so	5 A3a	5C3	Sum	α 2π2	
J -					6HLa	6G2a	Base Sat. %	Sum.	Base	Ext.	813	6Cla Free
CATION			ases	: 			VH _L OAc	Ext.	Sat. %		Ca/Me	
NH, OAG	6₩2ъ	602ъ	612a	662a	H	Al:	Exch.	ı		and Al		(Fe ₂ 0 ₃)
			alents per		·	>	5C1		me/100	<u> </u>		£ 3'
21.0	10.1	2.6	<0.1	0.5	20.5	0.1	63	33.7	39	13.3	3.9	1.1
9.8	0.3	1.0	<0.1	0.2	13.5	3.6	1.5	15.0	10	5.1		1.7
15.4	0.1	2.5	0.2	0.2	17.0	9.7	19	20.0	15	12.7		2.0
12.6	0.1	1.9	0.1	0.1	14.5	7.5	17	16.7	13	9.7	l	2.6
19.3	1.1	4.0	0.2	0.2	19.0	11.0	28	24.5	22	16.5	0.3	2.5
30.0	2.8	8.5	0.5	0.4	25.0	16.0	41	37.2	33	28.2	0.3	1.8
29.6	3.4	9.3	0.6	0.3	24.1	13.8	46	37.7	36	27.4	0.4	1.5
	4.7	11.7	1.0	0.3		7.9		34.3	52	25.6	•	1.4
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a. Cos	mon Fe	/Mn?-1	earine	agare	ı gates.	: Commo	i n Organi	.c Matt	er fre	Ements	•	
b. Mai	y Fe/N	n7-bes	ring s	TET OF	tes.		·				i-	
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Spil Type: Falkmer silt loam Spil Nos.: S51Miss-70-2

Soil Nos.: 551Mas-70-2
Location: Tippeh County, Mississippi, 3 miles east of Riue Mountain, 300 feet south of local road. SWL/4 SWL/4,
Sec. 10, 758, R3E.

Vegetation and Use: Hardwood forest.
Slope and Land Form: Nearly level (1 percent slope).

Brainage and Permeability: Somewhat poorly drained with slow to medium surface runoff and slow internal drainage.

Fermeability: 1s reducate in the upper part of solum and very slow in the D.

Parent Material: Thin losss over Coastal Flain clays.

Collected by: J. S. Allen and Dean C. McMurtry, Jr., May 19, 1961. Described by: W. S. Bright and R. C. Carter, May 19, 1961.

Horison and **Mincoln** Iab. No.

02 to 0 inch. Hardwood leaves.

O to } inch. Very dark gray (10YR 3/1) silt losm; weak fine granular structure; friable; common fine

15208 and few coarse roots; abrupt smooth boundary.

to 6 inches. Mottled yellowish brown (10YR 5/4) and brown (10YR 5/3) silt loam; mottles are many, fine, faint; weak fine and medium granular and medium subangular blocky structure; friable; common fine 15209 and few medium and coarse roots; few fine black concretions; root and worm holes filled with material

from A and B horizons; clear smooth boundary.

B21t 6 to 12 inches. Yellowish brown (10YR 5/4) heavy silt loam; weak fine and medium subangular blocky 15210

structure; friable; few fine to coarse roots; few fine black concretions; clear smooth boundary.

12 to 16 inches. Mottled yellowish brown (10YR 5/4) light brownish gray (10YR 6/2) and yellowish red B22t 15211

(5YR 4/8) silty clay loam; mottles are many fine, distinct, and prominent; moderate medium and fine subangular blocky structure; friable; plastic; few fine to coarse roots; few fine black concretions;

clear smooth boundary.

B23tg 18 to 23 inches. Light brownish gray (2.5Y 6/2) silty clay loam with many fine distinct and prominent 15212 mottles of yellowish brown (10YR 5/4) and yellowish red (5YR 4/8); moderate very fine and fine sub-

angular blocky structure; plastic; friable; few fine and course roots; few fine black concretions; common

fine soft red concretions; clear smooth boundary.

23 to 28 inches. Gray (5Y 5/1) clay with many fine and medium prominent mottles of yellowish red (5YR 4/8); and strong brown (7.5YR 5/6); moderate medium angular blocky structure; very plastic; sticky; few IIE24tg 15213

fine and coarse roots; few fine soft red concretions; gradual smooth boundary.

IIClg 28 to 41 inches. Gray (5Y 5/1) clay with many fine and medium distinct yellowish brown (10YR 5/4) mot-15214

tles; massive; very plastic; sticky; few fine roots; few fine black hard concretions; few slickensides about 1 inch wide; gradual smooth boundary.

41 to 61 inches. Mottled gray (10YR 5/1) and yellowish brown (10YR 5/4) clay; mottles are many fine and 15215

medium distinct; massive; very plastic; sticky; few fine roots; few fine black, brown and red concretions; few small slickensides about 1 inch wide.

Remarks: The BE2t and IIC2g horizons were sampled for the Bureau of Public Roads. Colors given are for moist soil.

Mineralogy (Mathod 7B): Quartz and feldspar dominate the very fine sands of the coastal plain sediments and the losss mantle. The quartz to feldspar ratio is higher and kyanite is present in the coastal plain sediments. The quantity of tourmaline, pyroxene, and plant opal is higher in the loss. Flant opal is virtually absent in the. coastal plain sediments. A considerable amount of weathered biotite is present in the coastal plain sediments.

SOIL NOS. SOMESB-25-3 LAB. NOS. 14515-14524	SOIL	TYPE	G	cenada 1t loam		LOCAT	ION	Hinds (County,	Missi	ssipp	1
DEPTH HORIZON COARSE SAND SAND SAND SAND SAND SAND SAND SAND		SOIL	NOS.	560Mi	88 - 25-3		LAB.	NOS.	14	1519-14	524) y Lagagas, appar
DEFITY HORIZON COARSE COARSE MEAND SAND SAND SAND SAND SAND SAND SAND S	•		lBla				OUTION (n man.) (pe	r cent)	••••••		
	DEPTH INCHES	HORIZON	VERY COARSE SAND	COARSE MI	EDIUM FINE SAND	VERY FINE SAND	1					TEXTURAL CLASS
	T	_x_	2.	1.0,3				·-j	1r		••••••	
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Hinds County, Mississippi, 3/4 mile south of Smith's station on Pickett farm. Center of W_2 of SW_4^1 , SW_4^1 , Sec. 25, T16N, R5E. Location:

Vegetation and Use: Bermuda pasture.

Slope and Land Form: Nearly level. One percent slope.

Drainage and Permeability: Moderately well drained with medium rumoff and medium internal drainags. Permeability is moderate in the upper

solum and slow in the fragipan.

Parent Material: Loess.

Samples Collected by: R. R. Covell, W. A. Cole, V. H. McGehee, and Y. H. Havens, December 6, 1960.

Profile Described by: V. H. McGehee and Y. H. Havens, December 6, 1960.

LINCOLE LAB.NO. HORIZON (inches)

DESCRIPTION

14519 0-5

Brown to dark brown (LOYR 4/3) silt loam with many fine faint and distinct mottles of light brownish gray (10YR 6/2) and dark brown (7.5YR 3/2); (part of mottling appears to be from root stains); weak fine subangular blocky and weak fine granular structure; friable; many fine roots; few soft fine black concretions; abrupt smooth boundary.

14520 Brown to dark brown (7.5YR 4/4) heavy silt loam; 5-17

on ped faces; few fine soft black concretions; few fine voids; few root or worm channels filled with light brownish gray (10YR 6/2) (dry) silt loam; common fine roots; clear smooth boundary.

14521 B₂₂ 17-24

Brown to dark brown (7.5YR 4/4) silt loam with common fine and medium distinct light brownish gray (10YR 6/2) mottles; moderate fine and medium subangular blocky structure; friable; few fine and medium manganese concretions; few manganese coatings on ped faces; few fine roots; gradual smooth boundary.

14522 A'21x and 24-29 B'21x

Mottled dark brown (7.5YR 4/4), pale brown (10YR 6/3), and light brownish gray (10YR 6/2) silt loam; mottles are many, fine to coarse, distinct; moderate fine and medium subangular and angular blocky structure; friable; few fine roots; light brownish gray (IOYR 6/2) silt coatings on all ped faces and in

SOIL Lekeland sendy losm

SOIL Nos. #559Hiss-30-2 LOCATION Jackson County, Mississippi

SOIL SURVEY LABORATORY Beltsville, Maryland

LAB. Nos. 567 - 5611

		181b						Size clas	e and paits	çie diamete	r (mm) SA	1						
			Total		<u> </u>			Send		Ŝil					382		rae fragme	enta 3E
Depth	Herizon	Sand	Silt	Cley	Vary	Coerse	Medium	Fime	Very fine		Int. III	let. II				2A2		Ī
(in.)	Mairtin	(2-0.05)	-	(= 0.002)	COBISO					0.05-0.02			/2-0 I)		Cm	>− 2	2 - 19	19-
(,,,,		(2-0.00,	0.002)	(- 0.000,	(2-1)				(0.10.05)	J	0.002)	, o. o. o.,	(12-0.1)			Pot.	<u>ال</u>	et. of 76mm
0-3	Al	-	8.7	2.5	0.3	9.1	1 30.7	43.8	4.9		6.1	25.8				-		/ 044144
3-13	A3		9.7	3.6	0.5	13.6	31.2	37.6	3.8		7.3	21.2				-		
13-9ŏ	CI		12.0	3.9	0.7	11.2	26.3	37.6 41.0	4.9		8.4	26.4				tr.		
30-50	OS.		11.6	4.2	0.5	10.2	25.1	43.1	5.3 4.8		8.2	27.7				tr.		
50-72+	03		7.0	2.5	1.1	11.7	26.1	44.8	4.8		4.5	26.4				tr.		
	1												-					
	6A1a	Γ.						Bulk danelt	Y	401		feter conte	nt		4C1		pH	
Depth	Organic	Nitrogen	C/N		Certonate	Ext. Iron		4Ale	4Alh			4Blç	482				8Clc	8C
(in.)	carbon				as CaCO ₃	es Fe		% ber	Oven dry	COLE		}≤ her	15 bar		WRD		(1:1)	a:
								"						,			' '	
	Pet.	Pct.			Pat.	Pct,	g/oc	2/00			Pct.	Pct.	Pot.	L. " .	in/le		KCI	H2
0-3	0,84	0.040	21															4.
3-13	0.14	0.011						1						1			1	5.
13-90	0.06	0.009	 	├	-	<u> </u>	 -	-	-	\vdash	-	-	-	-	┼	-	 	5.
90-50 50-72+	0.04	0.008																?: 5.
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. <i></i> i		Extractal	le bases S	581e		6HLa	· · c	EC	6 9 1d				tation to de	<u> </u>	803		Base set	tyratio
Dopth	6M2d	602b	6P2a	6Q2a		Ext.			١			CEC	Dat.	15-ber	Ca/Mg		5C3	80
(in.)	Ce	Mg	Ma	K	Sum	acidity	5A3a Sem		Ext. Al			Sem	iron	Mateu	Caling		Sum	NH4
		ı	l	l		l	cations	I	I .				l				cations Pct.	Po
0-3	0.3	1 0.1	ter.	tr.	meq/100 g	3.9	4.3	T "									9	+
3-13	0.1	0.2	tar.	0.1		1.8	2.2						l				18	
L3~90 I	0.1	0.2	tr.	0.1		1.0	1,4										_28	
30-50	0,2	0.1	tr.	tr.	ľ	1.2	1.5	T					l				20	
50-72+	0.1	0,2	tr.	tr.		0.8	1.1						l				27	
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917		<u></u>				,								<u> </u>			ļ ,	
		ا	l "		tion Analysi		T	6355-45-	Ι									
Depth (in.)	Mt.	Chi.	Vm. 7A;	Mí. 2	Int.	Qtz.	KI.	Gipbelte										
	•	,	X-m		, ,		7	43 →				₩t, = 			- chlorite, V z. — quartz,			- 61
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Soil Type: Lakeland sandy losm

Scil No.: S55Miss-30-2 Location: Jackson County, Mississippi, 2 1/4 miles W. Hurley, NW 4, ME 4, Sec. 31, T 4S, R 5W

Vegetation: Longleaf pine, occasional scrub oak

Horizon and Beltsville Lab. No.

0 to 3 inches. Very dark gray (10YR 3/1) very friable sandy loam; weak medium crumb 567 structure; gradual smooth boundary; numerous roots, and worm casts; very strongly acid.

3 to 13 inches. Brown (10YR 5/3) with many medium faint mottles of light gray (10YR 7/2) and worm casts of very dark gray (10YR 3/1); very friable sandy loam; weak medium crumb A3 568 structure, gradual smooth boundary; some roots; very strongly acid.

13 to 30 inches. Yellowish brown (10YR 5/4) very friable sandy losm single grain with a Ç1 tendency towards medium subangular blocky structure; gradual wavy boundary; few worm casts and channels of light brownish gray (10YR 6/2), some roots; very strongly acid. 569

30 to 50 inches. Strong brown (7.5YR 5/8) with few distinct mottles of light yellowish brown (10YR 6/4) very friable sandy loam; essentially structureless with tendency towards C2 5610 medium subangular blocky, gradual wavy boundary; some roots; very strongly acid. The mottles appear to be caused by old channels or small pockets of sand.

50 to 72+ inches. Reddish yellow (7.5YR 7/8) with many coarse distinct mottles of very pale brown (10YR 7/3-7/4) very friable structureless loamy sand; very strongly acid. C3 5611

8C8-421 10-64 (Rev. 9-64) U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE gon Leaf silt loam 855161.66+30-7 LOCATION Jackson County. Mississimi. WF

Soil Type: Leaf silt loam
Soil No.: 855Miss-30-7
Location: Jackson County, Mississippi, SE 4, NW 4, Sec. 5, T7S, R5W, 2 miles NE Escatawpa.

Vegetation: Wiregrass

Horizon and Beltsville Lab. No.

O to 3 inches. Very dark gray (lOYR 3/1) friable silt loam; moderate medium crumb structure; abrupt smooth boundary; many grass roots; strongly acid.

5635

3 to 5 inches. Yellowish brown (10YR 5/4) to light yellowish brown (10YR 6/4) firm A2 5636 silt loam; moderate subangular blocky structure; clear smooth boundary; numerous grass

roots; very strongly acid.

5 to 7 inches. Light brownish gray (2.5% 6/2) with many fine distinct mottles of red (7.5% 4/8) firm silty clay loam to clay loam; weak medium angular blocky structure; clear smooth boundary; were strongly sold. Bl 5637

7 to 72+ inches. Gray (10YR 6/1) with many medium prominent mottles of red (2.5YR 4/8) and yellow (10YR 7/8) very firm clay; strong medium angular blocky structure; very B2t 5638 strongly acid.

10-64 (Rev. 9-6 SOIL Lea	r silt l	Loam				en	li Mae	85500	ss-30-	B in	ATION	Jackso	n Coun	tv. Mi			ERVATION	
SOIL SURVEY						30	il Mus.				. Nos			,	,		1	
						•		A in	4 - 11			,						
		181b	Total					Send Send	ss and parti	Si Si			_		3B2		rse fragme	ets 3E
Depth (in.)	Horizon	Sand (2-0.05)	Silt (0.05– 0.002)	Clay (< 0.002)	Very coarse (2-1)	Coerse (1-0.5)	Medium (0.5-0.25)	Fine (9.25–0.1	Very fine (0.1–0.05)	0.05-0.02	Int. 111 (0.02– 0.002)	Int. II (0.2-0.02)	(2-0.1)		Cim	2A2 ➤ 2	2 - 19	! .
0-2	Al	=	-	17.9	0.1		0.5		11.9	1			_			Pct.		/6mm
2-6 6-12	A2 B21t	<u> </u>	63.4 58.9 46.4	20.0 46.9	0.7	1.3	0.6	6.3 1.8	12.2		40.2 37.4	35.8 35.9 15.0				tr.		
12-72+	B22t		40.3	54.5		0.1	0.1	1.5	3.5	*,	32.6	12.5		_		-		
															•			
. , ,	<u>'</u>	_		1				Bulk densi	by .	453	 	ater conte	nt .		4C1		pH	
Depth	6Ala Organic	Nitrogen	C/N		Carbonate			4A10	4A1h	4D1		481c	482				8Clc	8C14
(In)	carbon				as CaCO ₉	as Fe		≱s bar	Oven dry	COLE		⅓ ber	15 ber		WRD IR/le		(1:1) KCI	(1:1 H ₂ 0
0-2 2-6	4.83 2.54	0.251	19 19		Pct.	Pot.	g/cc	g/cs	g/cc		Pct.	Pct.	Pet.					4.3
6-12 12-72+	0.72	0.133 0.076 0.048	9						ļ .									4.5
 											,							
		-																
	<u> </u>	Extractat	de bases !	5B1a		бна	C	EC	6G1d				atios to ch	i y	8D3		Base sat	1
Depth (in.)	6N2d Ca	602b Mg	6P2a Na	6Q2a K	Sum	Ext. ecidity	5A3a Sum cetions		Ext Al			CEC Sum	Ext. iron	15-ber water	Ca/Mg		Sum cations	5C1
		1	1	l	meg/100 g				<u></u>								Pct.	Pct.
0-2 2-6 6-12	1.3 0.6 0.5	0.7 0.7 1.0	0.1 0.1 0.1	0.2 0.1 0.1		21.7 15.9 17.4	24.0 17.4 19.1										10 9 9	
12-72+	1.5	2.6	0.1	0,2		21.4	25.8										17	
							,	ļ 			<u> </u>							_
		<u> </u>							<u> </u>					ļ <u></u>				<u> </u>
Depth (in)	Mt.	CM.	Vm.	Mi.	ion Analysi Int.	Qtz.	KI.	Gibbeite										
	-	<u> </u>	7A —— X-rs		<u> </u>	 	, ,	 ለ <u>ነ</u>							- chlorite, V z quertz,			= Mica
	_							<u></u> .				Relative	amounts:	blank — no	st determine noderate, xx	id, dash —	not detect	eđ, domini
												41						

USDA SCO HYATTSVILLE NO 1506

Soil Type: Leaf silt loam
Soil No.: S55Miss-30-8
Location: Jackson County, Mississippi, SW 4, SE 4, Sec. 30, T 66, R 5W, 2 miles SW of Helena.
Vegetation: The area was in wiregrass that appeared to have been burned regularly.

Horizon and Beltsville Lab. No.

O to 2 inches. Black (10YR 2/1) friable silt loam to silty clay loam; moderate medium 5639 crumb structure; clear smooth boundary; numerous grass roots and worm casts; very strongly acid.

2 to 6 inches. Brown (10YR 5/3) with many medium distinct mottles of yellowish brown (10YR 5/8) very dark gray (10YR 3/1) and yellow (10YR 7/8) friable silty clay loam of moderate medium subangular blocky structure, clear smooth boundary; many roots and worm 5640 casts; very strongly acid.

6 to 12 inches. Light brownish gray (10YR 6/2) with many medium and coarse mottles of red (2.5YR 4/8) firm silty clay of strong medium angular and subangular blocky structure; B21t 5641 gradual wavy boundary; few roots; very strongly acid.

12 to 72+ inches. Gray (N 5/) with many medium prominent mottles of red (2.5% 4/8) and few medium distinct mottles of strong brown (7.5% 5/8) firm clay of strong medium angular and subangular blocky structure. Very strongly acid. B22t 5642

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SOIL Loring silt 1		. SOIL 1	Mas.	852Miss-17-2	OCATION	DeSoto County, Mississippi
			,			
	Relieville Maryland				Am. M	52k05 - 52k11

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			Total					Sand		Sin	<u> </u>				382		ree fragme	nts 3
Depth	Horizon	Send	sin	Clay	Very coarse	Course	Medium	Fina	Very fine		Int. 🎞	Int. II				2A2 == 2	2 - 19	19-
(in.)		(2-0.05)	(0.05- 0.002)	(< 0.002)	(2-1)		l		(0.1-0.05)	0.05-0.02	0.02-	(0.2-0.02)	(2-0.1)		Çm	.	P(1. of _
0~4	A1	4	64.0	11.7	0.3	0.6	0.5	0.8	2.1		29.0	57.5		-	-	Pct.	-	76mm
4-8	B1		75.1	22.8	0.1	0.3	0.2	0.3	1.2		34.4	42.2				-		
	B21t	l	74.2	23.2		0.3	0.3	0.4	1.5		32.6	43.4	L.,					
16-24	B22t		75.3	21.9	0.1	0.3	0.3	0.4	1.7		33.4	43.8				-		
	B23xt B24xt		78.3 78.6	17.9 17.5	0.1	0.7	0.4	0.6	2.0		35.0 36.9	45.6 44.4				:		
38-42	B25xt		78.0	19.2	-	0.2	0.3	0.5	1.8		37.1	43.0	_	-	-	-		1
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			l					Butk deasit	7	4D1	W	later conte	nt		4C1		pН	
Depth	6A1a Organic	Nitragen	C/N		Carbonete	Ext. Iron		4AZe	4A27r	401		4B1c	4B2	1	401		8Clc	8C1
(in)	carbon	•	ļ .,		as CaCO ₃	as Fe		35 ber	Oven dry	COLE		% ber	15 ber		WRD		(1:1)	(1:)
	Pet.	Pct.			Pct.	Pet.	g/cc	£/\$\$	g/oc		Pct.	Pct.	Pet.		in/in		KCI	Hz
0-4	0.28		 				 					. VI.	. 44.		<u> </u>		<u> </u>	6.0
4-8	0.18			1			l											4.0
8-16	0.07	ļ	ļ	<u> </u>	<u> </u>		<u> </u>										ļ	4.0
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32-38	-			1			l											4.
38-42	-																	4.
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a	6N2d	602b	6P2a	6Q2a	_	Ext.								1			5C3	5C
Depth (in)				· ·		_	5A34		Ext.			CEC	Ext,	15-bar	Ca/Mg			
,,	Ce	Mg	Na	×	\$µm	acidity	Sem cations		Al			Sum	Iron	Water			Sum cations	NH ₄ C
		<u> </u>	'	<u> </u>	meq/100 g		Catomie										Pct.	Pct
0~4	5,6	0.9	0.1	0,1		4.6	11.3										59	
		U V . 7												I		ı	34	
4-8	3.4	1.5	0.2	0.1		10.3	15.5							1				
4-8 8-16	3.4 2.6	1.5	0.2	0.1 0.1		10.3 11.8	16.6										29	
4-8 8-16 16-24	3.4 2.6 2.0	1.5 1.9 1.7	0.2 0.2	0.1 0.1 0.1		12.5	16.6										29 24	
4-8 8-16 16-24 24-32	3.4 2.6 2.0 1.5	1.5	0.2 0.2 0.3	0.1 0.1 0.1 0.1		10.3 11.8 12.5 12.0 12.2	16.6										29	
4-8 8-16 16-24	3.4 2.6 2.0	1.5 1.9 1.7 1.4	0.2 0.2	0.1 0.1 0.1		12.5 12.0	16.6										29 24 22	
4-8 8-16 16-24 24-32 32-38	3.4 2.6 2.0 1.5 1.3	1.5 1.9 1.7 1.4 1.4	0.2 0.2 0.3 0.3	0.1 0.1 0.1 0.1 0.2		12.5 12.0 12.2	16.6 16.5 15.3 15.4										29 24 22 21	
4-8 8-16 16-24 24-32 32-38	3.4 2.6 2.0 1.5 1.3	1.5 1.9 1.7 1.4 1.4	0.2 0.2 0.3 0.3	0.1 0.1 0.1 0.2 0.2	ion Analysia	12.5 12.0 12.2 12.6	16.6 16.5 15.3 15.4										29 24 22 21	
8-16 16-24 24-32 32-38 38-42	3.4 2.6 2.0 1.5 1.3 1.9	1.5 1.9 1.7 1.4 1.4	0.2 0.2 0.3 0.3	0.1 0.1 0.1 0.2 0.2		12.5 12.0 12.2 12.6	16.6 16.5 15.3 15.4 16.9	Cibballa									29 24 22 21	
4-8 8-16 16-24 24-32 32-38	3.4 2.6 2.0 1.5 1.3	1.5 1.9 1.7 1.4 1.4	0.2 0.2 0.3 0.3	0.1 0.1 0.1 0.2 0.2	ion Analysi	12.5 12.0 12.2 12.6	16.6 16.5 15.3 15.4	Gibbeite			,						29 24 22 21	
4-8 8-16 16-24 24-32 32-38 38-42	3.4 2.6 2.0 1.5 1.3 1.9	1.5 1.9 1.7 1.4 1.4	0.2 0.2 0.3 0.3 0.3	0.1 0.1 0.1 0.2 0.2		12.5 12.0 12.2 12.6	16.6 16.5 15.3 15.4 16.9	Sibbeite 3	•		,		lçarlanorille ntaratretific	d layer, Qt	chiorite, Vi	KI. = Kaol	29 24 22 21 25	
4-8 8-16 16-24 24-32 32-38 38-42	3.4 2.6 2.0 1.5 1.3 1.9	1.5 1.9 1.7 1.4 1.4	0.2 0.2 0.3 0.3 0.3	0.1 0.1 0.1 0.2 0.2		12.5 12.0 12.2 12.6	16.6 16.5 15.3 15.4 16.9			· · · · · · · · · · · · · · · · · · ·	,	Relative	içentmorillo eteratzetific emovents:	d layer, Qt blank — no		Ki. = Kaoi d, dash =	29 24 22 21 25	æd,
4-8 8-16 16-24 24-32 32-38 38-42	3.4 2.6 2.0 1.5 1.3 1.9	1.5 1.9 1.7 1.4 1.4	0.2 0.2 0.3 0.3 0.3	0.1 0.1 0.1 0.2 0.2		12.5 12.0 12.2 12.6	16.6 16.5 15.3 15.4 16.9			· · · · · · · · · · · · · · · · · · ·	,	Relative	içentmorillo eteratzetific emovents:	d layer, Qt blank — no	z. m quertz, t determine	Ki. = Kaoi d, dash =	29 24 22 21 25	æd,

DEBA-BCS-HYATTEVILLE NO 194

Soil Type: Loring silt loam

Soil No.: 852Miss-17-2 Location: De Soto County, Mississippi, about 3/4 mile southwest of Cublake, Mississippi Collected by and date: E. J. McMutt and A. H. Hasty, March 20, 1952

Horizon and Beltsville Lab. No.

52405

O to h inches. Grayish brown (2.5Y 5/2) friable moderate fine granular silt losm; medium acid. (Probably been limed.)

B1 52406 4 to 8 inches. Yellowish brown (10%R 5/6) friable moderate fine granular silt losm;

strongly acid.

B21t 52407 8 to 16 inches. Yellowish brown (10TR 5/6) friable to firm moderate fine granular silt

losm; strongly acid.

B22t 52408 16 to 24 inches. Yellowish brown (10YR 5/4) firm weak medium granular light silty clay

loam; strongly acid.

Ol sa 30 trabes Kaller and the

32 to 38 inches. Mottled light yellowish brown (10YR 6/4), light gray (10YR 7/2), and dark grayish brown (10YR 4/2) firm to very firm weak subangular blocky silty clay losm; strongly acid. (This is a pan layer.)

SOIL	SURVEY LABORATORY Lincoln, Nebr.	March 1959
SOIL	TYPE LOCATION E	inds County, Mississippi

____LAB. NOS.____8941-8949__ SOIL NOS. _S56Miss25_1 PARTICLE-SIZE DISTRIBUTION (in mm.) (per cent) 1Bla 2A2 HORIZON COARSE SAND VERY TEXTURAL CLASS DEPTH COARSE MEDIUM FINE SILT > 2 CLAY 2-1 1-0.5 0.5-0.25 0.25-0.10 0.10-0.05 0,05-0,002 < 0.002 | 0.2-0.02 |0.02-0.002 0.2a 88.2 1-6 A2 0.la 0.2a 0.4a 0.56 10.4 51.7 37.2 81 6-9 B). 74.5 24.8 39.6 <0.1 0.1 0.1 0.2¢ 0.3e 35.3 sil 69.8 9-21 B21t <0.1 <0.1 ∞.1 <0.1 <0.1 30.2 32.1 37.7 sicl 40.7 34.4 B22t <0.1 0.2c 74.6 24.7 21-27 <0.1 0.1 0.4c sil 43.5 27-34 1923tx <0.1 O.la 0.2a 0.3a 0.5a 21.0 35.1 811 77.9 34-42 B24tx 0.6a 81.3 44.8 sil <0.1 0.la 0.3a 0.7a 17.0 37.6 43.5 42-52 B25tx <0.1 O.la 0.2a 0.4a 78.5 20.3 35.7 sil 0.5e 19.4 52-64 B31tx 36.5 43.6 <0.1 0.la 0.2a 0.4a .O. 4a 79.5 sil 64-74+B32tx 18.8 38.0 42.1 <0.1 0.3a 0.4a 0.85 0.56 79.2 sil ORGANIC MATTER MOISTURE TENSIONS ρH Free 8Cla 6Ala 6Bla 422 Iron CoCOs ORGANIC NITRO-1/10 equiv-%¥e5o⁴ 1:5 1:10 C/N ATMOS. ATMOS. ATMOS, 6СЦа * 1:1 4.1 1.18 0.092 13 5.0 0.9 4.8 0.43 0.051 2.0 9.5 4.7 0.21 0.044 2,8 11.8 4.9 0.13 0.033 2,5 10.3 2.4 5.1 0.12 9.0 8.4 0.10 2.2 5.2 0.08 9.5 5.2 2.1 0.08 2.0 9.2 5.5 8.3 0.08 6.0 1.7 EXTRACTABLE CATIONS 5814 BASE 5A3a Ca/Mg 5C3 5Bla 5Ala SAT. CATION EXCHANGE CAPACITY Sum. Sum 602b 3a,se 6**N2**b 6На 6P2a 602s NHLAC EXCH. Bat. % Bases Cations ĸ Ca bn Stum NH, Ac 100g. soil me/100g me/100g. 5CL Cations. 6.8 < 0.1 8.4 6.3 0.8 1.6 0.4 0.4 25 19 28 2.4 37 3.6 12.8 9.7 0.6 9.2 0.1 0.5 0.4 39 5.0 16.6 12.8 11.6 30 0.9 3.6 0.1 32 26 0.6 10.6 3.8 14.4 11.7 2.7 0.2 0.3 33 43 3.5 4.1 10.5 0.5 2.5 9.6 0.2 0.3 27 13.1 7.8 0.4 11.9 9.6 0.2 34 0.9 2.6 6.5 6.0 56 52 12.5 0.3 11.5 1.2 4.5 0.6 0.2 4.4 93 75 80 11.4 15.1 0.8 12.2 5.7 3.7 1.1 0.2 99 11.3 4.6 5.4 2.7 1.0 0.2 11.2 13.9 0.8 a. Many smooth light brown concr. (Fe?) Common smooth light brown concr. (Fe?) ъ.

Few smooth light brown concr. (Re?)

Soil Type: Loring silt loam Soil Nos: 856Ntss25-1

Incation: Hinds County, Mississippi, 6 miles north of Jackson, Mississippi on George S. Hamilton farm, northeast

quarter of northwest quarter of Sec. 4, Ton, ROE, photo 3G-175.

Vegetation and Use: Hardwood forest with undercover of buckleberry, crabapple, honeysuckle, laurel, ivy, broomsedge and other native grasses.

Slope and Iand Form: Cently sloping 2 to 5 percent. Loss uplands with undulating topography. Prainage and Permeability: Moderately well drained. Permeability is moderate in the horizons above the fragipan

and slow in that layer.

Parent Material: Loss. Collected and Described by: Joe Kubota and V. H. McGehee, April 18, 1956.

Horizon and Lincoln Lab. No.

01-02 1 to 0 inch. Thin litter of hardwood leaves.

O to 1 inch. Very dark grayish brown (10YR 3/2 moist) silt loam; weak fine granular structure; very friable; many fine roots; there is material from the A2 and B1 horizons intermixed in this horizon. Al

1 to 6 inches. Dark brown (10YR 4/3 moist) silt loam; fine granular structure; very friable; many fine 8941 and medium roots; clear wavy boundary.

6 to 9 inches. Bark brown (7.5YR 4/4 moist) silt losm; weak fine granular structure; friable; slightly 8942 sticky, slightly plastic when wet; many fine and medium roots; clear wavy boundary.

121t 9 to 21 inches. Dark brown (7.5YR 4/4 moist) silty clay loam; weak to moderate medium subangular blocky 8943 structure; friable; slightly plastic, slightly sticky when wet; numerous fine and medium roots; clear smooth boundary.

B22t 21 to 27 inches. Dark brown (7.5YR 4/4 moist) silt loam; weak medium subangular blocky structure; 8944 friable; slightly plastic, slightly sticky when wet; numerous pin holes; few fine roots; clear smooth boundary.

27 to 34 inches. Dark reddish brown, dark brown (5YR 3/4 and 7.5YR 4/4 moist) and yellowish brown (10YR B23tx 5/4 moist) in intricate pattern of mottled colors; silt loam; moderate medium to coarse subangular blocky 8945 structure; slightly plastic, slightly sticky when wet; friable to firm when moist; few fine roots; clear smooth boundary.

34 to 42 inches. Mottled dark brown (7.5YR 4/4 moist) and light brownish gray (10YR 6/2 moist) silt B24tx to friable; manganese coating on ped faces; numerous fine roots; clear smooth boundary. 8946

£25tx 42 to 52 inches. Mottled dark yellowish brown, gray and reddish brown silt loam with gray more prominent than in horizons below; sitt loam hard when dry; firm slightly plastic, slightly sticky when wet; medium prismatic structure; few fine roots; clear smooth boundary. 8947

B31tx 52 to 64 inches. Dark yellowish brown (10YR 4/4 moist) with some reddish brown (5YR 4/3 moist) and gray. 8948 silt loam; medium prismatic structure that breaks into medium and coarse subangular blocky peds; hard when dry; firm when moist; slightly plastic, slightly sticky when wet; manganese coatings on ped faces; clear smooth boundary.

64 to 74 inches plus. Dark yellowish brown (10YR 4/4 moist) white (10YR 8/1 dry) silt loam; moderate B32tx 8040 very coarse columnar to prismatic structure; moist firm; dry slightly hard; slightly sticky, slightly plastic when wet; few thin menganese coatings; few fine roots; this horizon is dry.

	SOIL SURVE	Y LABORATO	RY <u>Lincoln, Nebr</u>) 100	March 1959	
	SOIL TYPE	Ioring	LOCATION	finds County. Mt	seiseippi .	
	SOIL NOS.		LAB. N		<u> </u>	
	1 1 1		SIZE DISTRIBUTION (IN	nur) (bar ceut) 3/	2A2	
-	DEPTH HORIZON COA	RSE COARSE MEDIUM FII	VERY FIME SAND SILT	CLAY	TEXTURAL CLASS	
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Soil Type: Loring silt loam
Soil Mos.: 556Mase7-2
Location: Hinds County, Mississippi, 12 miles southwest of Jackson, Mississippi on the Mandolph Smith farm. Northeast quarter of northeast quarter of Sec. 30, ThW, RLW, photo 3G-59, dtd. 12-29-49.
Vegetaion and Use: Hardwood forest with undercover of huckleberry, crabapple, honeysuckle, broomsedge and other

native grasses.

Slope and Iand Form: Gently sloping 2 to 5 percent. Icess uplands with undulating topography.

Drainage and Fermsebility: Moderately well drained. Fermsebility is moderate in the horizons above the fraginan

and slow in that layer.

Parent Material: Loss. Collected and Described by: Joe Mubota and V. H. McGehee, April 18, 1956.

Horison and Lincoln Lab. No.

A1 8950 O to 1 inch. Very dark grayish brown (10YR 3/2 and 3/3 moist) silt loam; weak fine granular structure; very friable; many fine roots; abrupt smooth boundary.

boundary.

5 to 7 inches. Dark brown to strong brown (7.5YR 4/4 and 5/5 moist) silt loam; moderate fine granular and weak fine subangular blocky structure; friable; slightly plastic, slightly sticky when wet; many B1 8952

OIL	SURVEY LABORATO	RY Lincoln,	Nebr.	ugust 1961
OIL	TYPE Loring silt Loam	LOCATION	Hinds County,	Mississippi

SOIL NOS. S60MLss-25-4 LAB. NOS. 14525-14531

		181		PARTI	CLE-SIZ	E DISTRIB	UTION (in	mm.) (pe	r cent)	3A1		
DEPTH INCHES	HORIZON			MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY			2A2 > 2	TEXTURA
0-7	Ap	2·1 ≪0.1	1-0.5 O.la		0.25-0.10 0.2a	0.10-0.05 O.8b	0.05-0.002 89.5	< 0.002 9.3	0.2-0.02 61.3	29.1		si
7-11 11-23	Bi B21t	Ø.1 Ø.1	Ø.1 Ø.1	Ø.1 Ø.1	0.1b	1.2b	86.0 73.1	12.7 26.2	54.5 38.5	32.8 35.3	-	#11/#1
23-28 28-36	B22t B23tx	<0.1	<0.1 <0.1	0.la	0.2a	0.7b 0.7b	74.3	24.7 23.2	37.8 40.2	37.3 36.4	-	sil sil
36-52 52-66	B24tx B3tx		0.la <0.1	0.2a <0.1	0.5a 0.1a	0.9b 1.0b	76.0	22.3 21.3	44.0 45.2	33.2 33.5	-	\$1]. 81].
100311+1715+1 0010011 4+1 0 1		 	laman mun	 	 		nedotionerteroreitenen	Uzduos opios s t idipi	***************************************		URE TE	
· · · · · · · · · · · · · · · · · · ·	PH	ĭ	•	ANIC MA	ITEK	Free Iron				MOIS	UKE 12	4B2
801.a	1,5	1:10	6Ala ORGANIC CARBON	6Bla MITRO- GEN	C/H	Fe ₂ 0 ₃ %		CaCO ₃ equiv- alent		1/10 ATMOS.	1/3 ATMOS.	15 ATMOS.
. <u>!!</u>			9 00	2 006	10	601a 0.8		*			\$	4.6
5.3 5.6	ļ	[0.99 0.28	0.096	8	1.0	‡ }					5.6
4.9		•	0.29	0.036	8	1.8						10.7
4.8 4.9		ļ	0.10	0.033	[1.7		•				10.4 10.7
5.0.			0.05]	1	1.8	•	<u> </u>				10.8
5.2		•	0.05			1.7	1					11.0
5Ale		EXTRAC	TABLE	CATION	5B0a	BASE SAT.	Base		Bull	Densi	 .ty	THE PROPERTY OF THE PARTY OF TH
CATION EXCHANGE EAPACITY	6N2b	602b	6Hla	6P2a,	692a	NED OAG	Sat. % on Sum	Field			cm.	o.D.
NH ₄ OAc		1	f	100g. sei		EXCH.	Cations 5C3	% M.	g/cc	B3	#AJCa	g/cc
6.6 5.8	3.0 3.3	0.6	5.2 3.6	<0.1 <0.1	0.3	59 74	43 54					
10.9 11.7	3.7	1.9	8.3	0.1	0.3	55 43	42 33 32	17.2	1.47	23.8	1.44	1.52
12.5	2.5	2.2	11.0	0.2	0.4	42 55	32 43	19.7	1.56	26.0	1.49	1.59
12.9 14.2	3.2 5.7	3.2 4.7	9.3 6.4	0.4	0.4	79	64	19.8		27.0		
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Location: Hinds County, Mississippi, 1 mile east of Smith's station, 440 feet south of railroad tracks, 150 feet west of pond. NW corner of B of NB; SB; Sec. 25, T16N, R5E.

Vegetation and Use: Permanent pasture.

Slope and Land Form: Nearly level. Approximately 2 percent slope.

<u>Brainage and Permeability</u>: <u>Moderately well drained with medium rumoff and medium internal drainage</u>. <u>Permeability is moderate in the upper solum and slow in the fragipen</u>.

Parent Material: Losss.

Semples Collected by: R. M. Covell, W. A. Cole, V. H. McGehee, R. C. Carter, and Y. H. Havene, December 7, 1960.

	Describe		C. Carter and Y. H. Havens, December 7, 1960.
LINCOLN LAB. NO.	HORIZON	DEPTH (inches)	DESCRIPTION
14525	Ap	0-7	Brown to dark brown (10YR 4/3) silt loam with many fine faint pale brown (10YR 6/3) mottles; weak fine and medium granular and weak fine subangular blocky structure; friable; common fine roots; few fine soft brown concretions; few worm casts; clear smooth boundary.
14526	31	7-11	Brown to dark brown (7.57R 4/4) silt loam; weak fine medium subangular blocky structure; friable; root and worm channels filled with material from Ap horizon; few fine black concretions; few fine roots; clear smooth boundary.
14527	B _{21t}	11-23	Brown to dark brown (7.5TR 4/4) heavy silt losm or light silty clay losm; moderate fine and medium subangular blocky structure; friable; slightly plastic; few soft fine black concretions; few manganese coatings on ped faces; light gray (10TR 7/2) (dry) silt coatings on ped faces; clay films on ped faces; few fine roots; gradual smooth boundary.
14528	3524	23-28	Brown to dark brown (7.5%R 4/4) heavy silt loam with common fine and medium distinct pale brown (10%R 6/3) mottles; moderate fine and medium subangular and angular blocky structure; firm to friable, slightly plastic; common light gray (10%R 7/2) silt coatings on ped faces and in cracks; few fine roots; few fine soft manganese concretions and coatings; gradual smooth boundary.
14529	₩3tx	26-36	Mottled brown to dark brown (7.5YR 4/4), light brownish gray (10YR 6/2), and pale brown (10YR 6/3) silt loss; mottles are many, fine and medium, distinct; moderate medium and coarse subangular blocky structure; firm, friable when crushed; slightly plastic; common fine soft black concretions; few fine manganese coatings; gray silt coatings in cracks and on ped faces; few fine voids; few fine roots; gradual smooth boundary.
14530	B2 4tx	36-52	Mottled brown to dark brown (7.57R 4/4), light brownish grey (LOTR 6/2), and pale-brown (LOTR 6/3) silt losm; mottles are many, fine, distinct; moderate coarse prismatic structure which breaks to weak coarse subengular blocky; firm; frishle when crushed; slightly plastic; common fine voids; few manganese coatings on ped faces; few fine manganese concretions; few fine roots; gradual smooth boundary.
14531	B3tx	52-66	Brown to dark brown (7.5YR 4/4) silt losm with common fine and medium distinct light brownish gray (10YR 6/2) mottles; weak coarse subangular blocky structure; firm, friable when crushed, slightly plastic; few fine voids; few fine roots; common manganese coatings on ped faces; few fine manganese concretions.

Remarks: Colors given are for moist soil.

SOIL Lynchburg very fine sandy loam SOH Nes. S63Miss-37-3 LOCATION Lamar County, Mississippi

SOIL SURVEY LABORATORY Beltsville. Maryland LAB. Nos. 63273-63279

	i i	1,811						Size cla	ss and parti	cie diamete	r (mm)	3A1					_	
			Total					Sand		Sı	ŧ]		Ī	Τ	Coa	rse fragme	nts
Depth (in.)	Horizon	Sand (2-0.05)	Sin (0.05- 0.002)	Clay (~ 0.002)	Very coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25) . of << 2	l	Very fine (0.1-0.05)	0.05-0.02	Int. 111 (0.02- 0.002)	Int. II (0.2–0.02)	(2~0.1)		`	2A2 > 2 Pct.		19 76
0-4	Al	1	45.6	10.5	0.1	0.9	7.0	22.3	13.6		26.0	44.0		┼	 	tr.	 -	[
4-10	A2	1	46.3	9.5		1.6	7.6	25.1	13.2		26.1	44.7				tr.		
10-14	B1		43.2	11.3	0.1	1.0	8.8	23.4	12.2		24.3	42.0				tr.		
14-22	B2		35.2	15.5	0.1	0.8	10.0	27.6	10.8		20.6	37.6		T		tr.		
22 - 37	133g	1	15.0	17.9		0.9	14.7	40.2	11.3		6.6	36.5				tr.		
37-57	Clg		26.6	15.7	tr.	1.2	12.1	32.4	12.0		14.3	39.4		ļ	L	tr.		
57-65+	C2g	_	21.9	8.1	0.1	3.6	23.1	34.6	8.6		12.6	30.6			-	tr.		
	6Ala	6B2a				601a		Bulk densit	<u> </u>			/ater conte	nt				pH	<u> </u>
Depth	Organic	Nitrogen	C/N		Carbonete	Ext.		4Ale	4Alh			4Blc	4B2				801c	8Cla
(ln.)	carbon				as CaCO ₃	Iron	Ι΄.	1/3	Oven-			1/3	15				1:1	(1.1)
	1					8.8	l	Bar	dry			Bar	Bar				TM	H ₂ O
		n.		1	B	Fe	l	l	-								KC1	15
- 1	Pet.	Pct.		 	Pct.	Po+	g/cc	g/cc	g/cc		Pct	Pct.	Pet,	1	 	1	1	
0-4	3.64	0.122	30	1		0.4		1.08				30.7	7.6					4.4
4-10	0.38	0.021	18			0.4		1.64				14.1	4.5					4.7
10-14	0.14					0.6		1.62	1.64			14.7	4.8		 			4.8
14-22	0.11					1.0		1.58 1.72	1.88			16.7	6.8 7.5					4.8
22-37 37-57	0.03					1.4		1.80	1.92			13.2 14.6	7.2					4.6
31-31 57-65+	0.04	· ·				0.3		1.92				9.0			 	1	t	5.1
							,											
	<u> </u>	Extracteb		5Bla		6H2a	CH	i C	601a			<u> </u>	_	<u> </u>	<u> </u> 		Base sal	uration
Oepth	6N2a	602ъ	6P2a	6Q2a		Ext.	5A3a										5°3	
(in.)	Ca	Mg	Na	K	Sum	Acid-			Ext.								Sum Cat-	
		.				ity	ions		I AL			l .		l .			lions	
	<u>_</u>	"•			meg/108 g	-	ions		A1								ions Pet	Pol
0-4	<u> </u>		0.2					! ***	' -								Pct	Pul
0-4 4-10	0.6	0.4	0.2 tr.	0.1		13.0	14.3	 	3.1								Pet 9	Pol
0-4 4-10 JQ-14	<u> </u>		0.2 tr. 0.1			13.0		<u> </u>	' -								9 2	Pol
4-10 <u>JO-14</u> 14-22	0.6 tr. tr. 0.1	0.4 0.1 0.1 0.1	tr. 0.1 0.1	0.1 tr. tr.		13.0 4.2 3.7 4.9	14.3 4.3 3.9 5.2		3.1 2.2 2.3								9 2 5	Pul
4-10 <u>10-14</u> 14-22 22-37	0.6 tr. tr. 0.1 0.1	0.4 0.1 0.1 0.1 0.5	0.1 0.1 0.2	0.1 tr. tr. tr. 0.1		13.0 4.2 3.7 4.9 6.3	14.3 4.3 3.9 5.2 7.2		3.1 2.2 2.3 3.0 4.5								9 2 - 5 6	Pol
4-10 10-14 14-22 22-37 37-57	0.6 tr. tr. 0.1 0.1	0.4 0.1 0.1 0.1 0.5	0.1 0.1 0.2 0.4	0.1 tr. tr. 0.1		13.0 4.2 3.7 4.9 6.3 4.6	14.3 4.3 3.9 5.2 7.2 7.2		3.1 2.2 2.3 3.0 4.5 2.6								9 2	Pul
4-10 10-14 14-22 22-37 37-57	0.6 tr. tr. 0.1 0.1	0.4 0.1 0.1 0.1 0.5	0.1 0.1 0.2	0.1 tr. tr. tr. 0.1		13.0 4.2 3.7 4.9 6.3	14.3 4.3 3.9 5.2 7.2		3.1 2.2 2.3 3.0 4.5				-				9 2 - 5 6	Pul
4-10 10-14 14-22 22-37 37-57	0.6 tr. tr. 0.1 0.1	0.4 0.1 0.1 0.1 0.5	0.1 0.1 0.2 0.4	0.1 tr. tr. 0.1		13.0 4.2 3.7 4.9 6.3 4.6	14.3 4.3 3.9 5.2 7.2 7.2		3.1 2.2 2.3 3.0 4.5 2.6								9 2	Pol
4-10 10-14 14-22 22-37 37-57 57-65+	0.6 tr. tr. 0.1 0.1	0.4 0.1 0.1 0.1 0.5	0.1 0.1 0.2 0.4	0.1 tr. tr. 0.1		13.0 4.2 3.7 4.9 6.3 4.6	14.3 4.3 3.9 5.2 7.2 7.2		3.1 2.2 2.3 3.0 4.5 2.6								9 2	Pol
4-10 10-14 14-22 22-37 37-57 57-65+	0.6 tr. tr. 0.1 0.1	0.4 0.1 0.1 0.1 0.5	0.1 0.1 0.2 0.4	0.1 tr. tr. 0.1		13.0 4.2 3.7 4.9 6.3 4.6	14.3 4.3 3.9 5.2 7.2 7.2		3.1 2.2 2.3 3.0 4.5 2.6				-				9 2	Po

Soil Type: Lynchburg very fine sandy loam Soil No.: S63Miss-37-3

Location: 5.5 miles north of Purvis, on Highway 589, east one mile on gravel road; SE of road 300 feet, Township 3N, Range 14W, Section 20, Lamar County, Mississippi, aerial photo: CLQ-6V-200.

Vegetation and land use: Longleaf pine, occasional black gum, bluestem.

Slope and land form: 0 to 2 percent

Horizon and **Beltsville** Leb. No.

0 to 4 inches. Very dark gray (10YR 3/1) very fine sandy loam; weak fine granular structure; very friable; few pieces of charcoal; few fine dark brown (7.5YR 4/4) root stains; common fine roots; 63273 mixing from A2 by earthworms; strongly acid; clear wavy boundary.

4 to 10 inches. Light gray (2.5Y 7/2) very fine sandy loam with few medium faint mottles of light yellowish brown (2.5Y 6/4); weak medium granular and subangular blocky structure; friable; few fine roots; dark brown (7.5YR 4/4) root stains; some mixing by earthworms; strongly acid; clear wavy A2 63274 boundary.

10 to 1h inches. Pale yellow (2.5Y 7/h) loam with common fine distinct mottles of brownish yellow (10YR 6/6) and light gray (2.5Y 7/2); weak medium subangular blocky structure; friable; few small voids; few small roots; strongly acid; clear wavy boundary. 63275

 1^h to 22 inches. Light yellowish brown (2.5Y 6/4) loam with many medium distinct yellowish brown 63276 (10YR 5/8), light grey (10YR 7/1), and few medium prominent red (2.5YR 5/8), mottles; weak medium subangular blocky structure; friable; few gray (N 7/) prism faces, coatings much thinner than in B3g; few small voids; few coarse quartz grains; few fine roots; strongly acid; clear wavy boundary.

22 to 37 inches. Strong brown (7.57R 5/8) heavy sandy loam with common medium distinct light gray (N 7/) and few fine prominent yellowish red (57R 5/8); mottles; massive; friable; prism faces light gray (N 7/) sandy loam; the brown is sandy clay loam; strongly acid; gradual wavy boundary. B3g **6**3277

Clg 63278 37 to 57 inches. Mottled strong brown (7.5YR 5/8) and light gray (N 7/) heavy loam; massive; friable; brown is 70 percent of mass; gray is 30 percent; the gray is sandy loam, the brown sandy clay loam; few pressure faces; strongly acid; gradual wavy boundary.

57 to 65+inches. Coarse mottled light gray (N 7/), yellowish brown (10YR 5/8) and strong brown (7.5YR 5/6) sendy loam; massive; friable; large peds of brown to dark brown (7.5YR 4/4); texture C2g 63279 variable from sandy loam to light sandy clay loam; strongly acid.

Note: This area floods yearly.

SOIL Lynchburg very fine sandy loam	SOIL P	Nos.	863M1ss-37-5	LOCATION	Lamar County, Mississippi	
SOIL SURVEY LABORATORY Beltsville, Maryland				LAB. Nos.	63280-63285	

	1811						Size clas	s and parti	cie diamete	((中国)	3A1 .						
		Total					Sand	pare					1			rse fregmen	ts
Horizon	Sand (2.0.05)	Silt	Clay	Very coarse	Coerse	Medien (0 S-A 95)	Fine 40 25-0 11	Very fine	0.05_0.03	int, III	int. II	(2.A 1)			2A2 >- 2	2 - 19	19-76
	(2-0.03)	0 002)	(= 0.002)	(2-1)	(1=0.5) Pc(. of < 2 ((4.x3-0.1)	(6.1-0.00)	0.00-0.02	0.002)	(0.2-0.02)	(2-0.1)		ļ ,	Pct,		t. of 6mm
Ap		29.0	7.5	0.3				8.3		15.9	33.8		1		tr.	Ĩ I	
A2g		26.2		tr.	4.2	22.8		7.4		15.3	29.3				tr.		
B2	l		12.6	0.1	3.2_	57.5	29.5	6.8		15.8				<u> </u>		├	
В3		27.7				22.9	29.8			16.5							
		28.3	14.9	tr.			30.9			16.8	29.0						
C2g		12.8	13.6	0.4	2.0	21.5	41.4	7.7		0.4	30.6				tr.		
		_			•		C. II. damedi				Vatar			<u> </u>	,	, Tabl	
6Ala									·	-		_	-				۸
Organic carbon	Nitrogen	C/N		Carbonate as CaCO ₅	Iron as		1/3 Bar	MAIL Over- dry			1/3 Bar	15 Ber				acle 1:1 1N KC1	801a H ₂ 0
Pct.	Pct.	<u> </u>		Pct.	Pot	2/ 4¢	g/cc	g/cc	<u> </u>	Pet.				Ļ			
	0.090	3).			0.3	l '	1.50	1.54	1								4.6
	1	l	1	1		1	1.72	1.74		l		3.9	1	1			4.6
	-	 	-	-		 	1.74	1.60	 	\vdash			+	+	-	1	4.8
							1.00	1.78									4.9
							1.70	1.76			15.6						5.1.
 -																	
л ш ,	Extractal	de beses	SBla		682a	Ci	BC	6G14	<u> </u>		 			 		Bese sat	uration
6N2a	6020	6P2a	602a			5A3a								,		503 Sum	
Ca	Mg	Na	K	Sum	Acid- ity			Ext.								Cat-	Pct.
	Lob	103	TA 3	meg/100 j		120.0	1				 	<u> </u>	 	+			FGL.
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					3.7	4.3											
					3.2	4.2		lii						1		<u> </u>	.,
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	Ap A2g B2 B3 C1g C2g C2g C2g C2g C2g C2g C2g C2g C2g C2	Ap A2g B2 B3 C1g C2g	Total Horizon Sand (2-0.05) Cl.055 Cl.	Horizon Sand (2-0.05) 0.05	Horizon Sand	Horizon Sand	Horizon Sand Silt Clay Coarse (1-0.5) (0.05-0.26) (0.05-0.26) (2-1) Coarse (1-0.5) (0.5-0.26) (0.5-0.26) (1-0.5) (0.5-0.26) (1-0.5) (0.5-0.26) (1-0.5) (0.5-0.26) (1-0.5) (1-0.5) (0.5-0.26) (1-0.5) (0.5-0.26) (1-0.5) (0.5-0.26) (1-0.5) (0.5-0.26) (1-0.5) (0.5-0.26) (1-0.5) (0.5-0.26) (1-0.5)	Horizon Sand Clay Coarse Coarse Medium Fine (0.5-0.25) (0.05-0.002) (0.002)	Horizon Sand Sait Clay Coarse	Horizon Sand Silt Clay Very Coarse Carse (1-0.5) (0.05-0.02) (0.05-0.02) (1-0.05) (0.05-0.02) (1-0.05) (0.05-0.02) (0.05-0.02) (1-0.05) (0.05-0.02)	Horizon Sand Silt Clay Coarse	Horizon Sand Salt Clay Coarse (2-1) Coarse (1-0.5) (0.5-0.25) (0.5-0.25) (0.5-0.25) (0.5-0.05) (0.05-0.02) (0.02-0.02) (0.	Horizon Sand Sult Clay Coarse (1-0.5) Horizon Since Way fine Init III Init II	Herizon Sand Salt Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Clay Carbon Ca		Notice Sand Sult Clay Coarse	

Soil Type: Lynchburg very fine sandy loam....
Soil No.: S63Miss-37-5

Location: 4.4 miles west of Belview Baptist Church on Rwy 98; 1.1 mile north on paved road; West 0.3 mile on gravel road; N. 300 feet in pasture, Township 4 N, Range 15 W., Section 18. Lamar County, Mississippi, serial photo: CLQ-1V-122.

Vegetation and land use: Pasture, carpetgrass.

Slope and land form: 0 to 2 percent.

Beltsville · Lab. No.

Clg 63284

C2g

0 to 5 inches. Very dark gray (10YR 3/1) very fine sandy loam; weak medium granular structure; very

casts from A2, very strongly acid; abrupt wavy boundary. 5 to 10 inches. Light browniah gray (2.5Y 6/2) fine sandy loam with few fine faint mottles of clive yellow (2.5Y 6/6); weak fine and medium subangular blocky structure; very friable; few fine roots; brown to dark brown (7.5YR 4/4) stains around fine roots and in root channels; few earthworm casts from Ap; very strong-A2g 63281 ly acid; clear wavy boundary. 10 to 20 inches. Light yellowish brown (2.57 6/4) heavy sandy losm or light sandy clay losm with common B2 63282 medium distinct mottles of yellowish brown (10YR 5/8), strong brown (7.5YR 5/8), light gray (2.5Y 7/2) and few medium prominent red (2.5YR 4/8); weak medium subangular blocky structure; friable; few fine roots; strongly acid; clear wavy boundary. 20 to 39 inches. Medium and coarse mottled light yellowish brown (2.5% 6/4) strong brown (7.5% 5/8) gray (10% 6/1) and few medium prominent red (2.5% 5/8) heavy sandy loam; massive, friable; variable texture includes sandy loam and sandy clay loam (with fine sandy) tonguing streaks of gray; few fine voids or B3 63283 channels and cracks filled with silt and fine sand; very strongly acid; clear wavy boundary.

39 to 50 inches. Light gray (2.5% 7/2) sandy loam with many coarse prominent mottles of strong brown (7.5% 5/8) and few fine prominent red (2.5% 4/8); massive; friable; some peds are sandy clay loam; few fine voids; few fine crooks and channels filled with fine sand; strongly acid; clear wavy boundary.

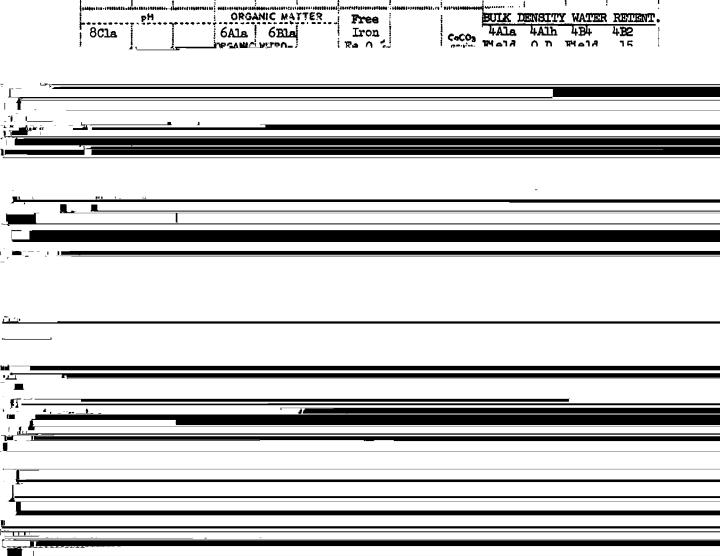
50 to 61 inches. Light gray (2.57 7/2) sandy loam with many coarse prominent mottles of yellowish brown

SOIL SURVEY LABORATORY Lincoln, Nebr. December 1958

SOIL TYPE Mayhew L'OCATION Noxubee County, Mississippi silt loam

SOIL NOS. S58Hiss-52-1 LAB. NOS. 8215-8221

. Pr 19 (p10041)420 15000	100-14100101-,-14144		lBla	PART	CLE-SIZ	E DISTRIE	JIIVN (in	mn-) (p:	r cent)	,3A1		
DEPTH		VERY				VEPY				•	2A2	TEXTURAL
INCHES	HORIZON	SATIO	COARSE	MEDIUM SAND	SAND	FINE	SILT	CLAY	Ì		>2	CLASS
	,	2.1	1.6.5	0.5-0.25	0. 25-0. 10	0.10-0.05	9.05-0.002	< 0.002	0, 2-0.02	Q02-Q002		
0-1	All	2.3a	2.მხ	1.3c	2.0c	3.40	61.0	27.2	20.1	44.7	Tr.	sicl
1-4	Al2	1.7a	2.5b	1.4b	3.5c	2.0c	59.4	29.5	19.3	44.0	Tr.	sicl
4-7	A3	2.5e	3.2ъ	1.46	3.4c	2.0c	56.3	31.2	17.8	42.4	Tr.	sicl
7-14	Blg		2.9b	1.60	3.6c	2.0c	53.1	34.4	16.6	40.4	Tr.	sicl
14-22	B2lg		2.76	1.110	1.5c	3.60	51.0	38.4	15.9	38.8		sicl
22-48	B22g		2.4ъ	1.2b	1.4c	3.1c	47.9	42.0	14.1	36.9	1 -	sic
48-71	Cg i	1.86	1.96	1.1b	2.5ა	1.5e	43.1	48.1	13.1	32.9	Tr.	sic
7244444 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	pH	4457-17100-1713 101	ORG/	NIC MA	TTER	Free	+8600004+31070088834,+4	#19-628#########	BULK I	ensity	WATEF	i Retent
8Cla			6Ala	6Bla		Iron		CoCOs	4Ala	4Alh	4B4 R4 = 1.8	4 <u>182</u>



Soil Type: Mayhew silt loam

Soil Nos.: S58Miss-52-1

Location: 625 feet south and 396 feet east of northwest corner of the SW 1/4 of the SW 1/4 of Sec. 5, T14N, R15E, 1.35 miles east of Winston County line and 160 feet south of Highway 14. Photograph NI-3H-154.

Area: Noxubee County, Mississippi. Use: Mixed hardwood and pine.

Relief: Nearly level (Gilgai relief).

Drainage: Foor drainage.

Parent Material: Acid clay (Porters Creek clay).

Ground Water: Deep.

Moisture: Moist to wet.

Root Distribution: Good in first 48 inches.

Collected by: J. S. Allen, K. W. Flach, and Y. H. Havens, May 20, 1958. Described by: Y. H. Havens.

Horizon and Lincoln Lab. No.

02 13 to 0 inch. Partially decayed leaves, pinestraw and small twigs.

All 0 to 1 inch. Dark grayish brown (10YR 4/2) silt loam; moderate fine granular structure; friable when

8215 moist; abrupt smooth boundary; many fine root and worm holes.

1 to 4 inches. Yellowish brown silt loam (10YR 5/4) with common fine distinct gray (10YR 6/1) and strong brown (7.5YR 5/8) mottles; moderate fine granular and weak fine subangular blocky structure; friable when A12 8216 moist, slightly plastic when wet; many fine root and worm channels, and many fine roots; abrupt smooth

boundary.

4 to 7 inches. Nottled yellowish brown (10YR 5/8) to brownish yellow (10YR 6/8) and gray (10YR 6/1) silty clay loam; weak fine subangular blocky and moderate fine granular structure; friable when moist, slightly A3 8217 plastic, slightly sticky when wet; many fine roots, root holes and wormholes; abrupt wavy boundary.

7 to 14 inches. Light brownish gray (10YR 6/2) to gray (10YR 6/1) silty clay loam with many medium distinct yellowish brown (10YR 5/8) and strong brown (7.5YR 5/6) mottles; moderate very fine to medium subangular Blg 8218

blooky structure; friable when moist, slightly plastic and slightly sticky when wet; numerous fine manganese concretions; many fine roots; clear wavy boundary.

14 to 22 inches. Gray (10YR 6/1) to light brownish gray (2.5Y 6/2) silty clay with many fine distinct yellowish brown (10YR 5/6) and (10YR 5/4) mottles; moderate fine to medium subangular blocky structure; friable when moist, plastic and slightly sticky when wet; few fine manganese concretions and few manganese coatings; numerous fine roots; gradual wavy boundary. 1217 8219

B22g 22 to 48 inches. Gray (10Y8 6/1) clay with many medium distinct unliquish horam (10Y2 5/8) mattless med-

	SOIL	SURVEY	LABORATO	RY Lincol	n, Nebr.	December	1958	4. m .
	SOIL	TYPE	wayhewsilt loam	LOCATION	l Nozub	ee County, 1	Mississippi.	
			S581/148-52-4					
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Soil Type: Mayhew silt loam Soil Nos.: 858Miss-52-4

Location: 480 feet west and 300 feet south of northeast corner of the SE 1/4 of the SE 1/4 of Sec. 28, T14N, R16E.

1.2 miles northeast of Macedonia Church and 150 feet southeast of local road.

Area: Noxubee County, Mississippi. Use: Mixed hardwood and pine. Relief: Nearly level (Gilgai relief).

Parent Material: Acid clay (Porters Creek clay).

Ground Water: Deep. Moisture: Moist to wet. Root Mistribution: Good.

Collected by: J. S. Allen, K. W. Flach, and Y. H. Havens, May 21, 1958. Described by: Y. H. Havens.

Horizon and Lincoln Lab. No.

05 2 to 0 inch. Partially decayed leaves, pine straw, grass and small twigs.

All. O to 2 inches. Very dark gray (10YR 3/1) silt loam; moderate fine granular structure: friable when moist:

8235 many fine roots, root and worm holes and few small manganese concretions; abrupt smooth boundary.

2 to 5 inches. Mottled light yellowish brown (10YR 6/4) and dark brown (10YR 4/3) silt loam with some gray; moderate fine granular and weak fine subangular blocky structure; friable when moist, slightly plastic when wet; many fine roots, root and worm channels filled with very dark gray (10YR 3/1) silt loam; few quartz gravel and coarse clean sand grains; many small manganese concretions; abrupt smooth 8236

5 to 11 inches. Mottled yellowish brown (10YR 5/4 to 10YR 5/8) and light brownish gray (10YR 6/2) silty clay loam; mottles are many, fine and distinct; weak fine and very fine subangular blocky and moderate A3 8237

SOIL TYPE Neuronia site loam soil lo		SOIL SUR	VEY LABOR	RATORY	Ancoin, Nebr	AAtt	gust 1961	
SOIL NOS. SCOMES-25-1 LAB. NOS. 14507-14512 PARTICE-SIZE DISTRIBUTION (in man.) (see cont). 341. PARTICE-SIZE DISTRIBUTION (in man.) (see cont). 342. PAR								<u></u>
CEPTITE MODITAL COARSE MEDIUM FINE VIEW 2A2 TRATIQUAL		SOIL NO	_					.
	- ₁₋₃		1 1		1	n.) (per cent)	040	-
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MEMPHIS SILT LOAM S60Miss-25-1 SOIL SURVEY LABORATORY Lincoln, Nebr. August 1961 SOIL TYPE Memphis LOCATION Hinds County, Mississippi silt loam

SOIL NOS.

S60M188-25-2 LAB. NOS. 14513-14518

, 000 000 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	**************************************	1B	la.	PARTI	CLE-SIZ	E DISTRIB	uTION (in	mm.) (po	mirrandani K çent)	3A1		
DEPTH INCHES	HORIZON	VERY COARSE	COARSE	MEDIUM	FINE	VERY FINE					2 A 2	TEXTURA CLASS
		\$AND 2-1	1-0.5	SAND 0.5-0.25	SAND 0.25-0,10	SAND 0.10-0.05	SILT 0.05-0.002	CLAY < 0.002	0. 2-0.02	0.02-0.002	> 2	
0-7	Ap	0.la	0.la	0.6	1.1	1.5	84.6	12.0	60.6	25.9		s11/s1
7-17	B21t		<0.1	⋘.1	Ø.1	0.9	70.4	28.7	39.7	31.6		sicl
17-25			∞.1	∞.1	⋖0.1	0.9	73.7	25.4	40.2	34.4	-	sil
25-37	B22t	Ī	<0.1	∞.1	Ø.1	0.7	78.4	20.9	42.2	36.9	-	sil
37-49	,		<0.1	<0.1	40.1	0.5	80.8	18.7	41.2	40.1	-	#11
49 -64	B23t	<0.1	<0.1	≪0.1	∞.1	0.4	81.2	18.4	40.3	41.3	-	sil
7(202) (20 00) 11200	H		OBG	ANIC MA	 	Free	*************************	***************************************	1044 re1064ce++ ;#8c	***************************************	TURE TO	MEIONE
0	PIT		İ		iiek I	Iron		,	Ì	M(13)	OKE !!	4B2
8Cla	1		6Ala	6Bla				CeCO ₃		1/10	1/3	15
	1:5	1:10	ORGANIC CARBON	GEN	C/N	Fe ₂ 03%	1	equiv- cient	?	ATMOS.	ATMOS.	ATMOS.
1:1			*	*		6Cla		*		*	*	*
5.7			0.69	0.069	10	1.1			1	1		5.6
6.0	•		0.16	0.030		2.3		Ī	1	į		12.8
4.9			0.09	0.024	1	2.2		Ī	į] :		11.0
4.9			0.21		1	2.1		1	Ĭ	l	Ì	9.6
5.0			0.06]	2.0			Î			9.0
5.2		1	0.07			2.0	į					8.9
									•			
5Ala		EXTRAC	TABLE	CATIONS	581a.	BASE SAT.	Base	<u></u>	Bull	Dens:	ty	
CATION XCHANGE APACITY	6 N2 b	6026	6Юа	6P2a	602a	*	Sat. %	Field	Moist	30	cm.	4A1h 0. D.
NH ₁ OAc	Co	Mg . millinaviv	H ploms per	No 100a. soi	K	NHLOAC EXCH. 5Cl	Cations 5C3	4B4 % M.	4Ala g/cc	4B3 % M.	4Alc g/cc	g/cc
						h	!]			
7.4	4.8	1.1	4.3	∞.1	0.5	86	60	1	l			
14.8	9.8	3.0	6.0	0.2	0.5	91	69	20.0	1.52	24.8	1.48	1.60
13.0	4.7	2.2	10.5	0.2	0.4	58	42		ļ		į	1
11.7	3.3	2.4	10.5	0.3	0.4	55	38	: -1. 0	1 7 55	25.7		1 2 60

Location: Hinds County, Mississippi, on old U. S. Highway $_{0}$ 80, 1,000 feet north of highway at Smith's station. Center W_{2} , SW_{1} of the SW_{4}^{1} ,

Sec. 24, T16N, R5E.

Vegetation and Use: Hay meadow.

Remarks: Colors given are for moist soil.

Slope and Land Form: Nearly level. One percent slope.

Drainage and Permeability: Well drained, with medium runoff and medium

Profile Described by: R. C. Carter and Y. H. Havens, December 7, 1960.

internal drainage. Permeability is moderate.

Parent Material: Loess.

Samples Collected by: R. R. Covell, W. A. Cole, V. H. McGehee, R. C. Carter, and Y. H. Havens, December 7, 1960.

LINCO LAB.N		DEPTH (inches)	DESCRIPTION
14513	A _p	0-7	Brown to dark brown (10YR 4/3) silt loam; weak fine and medium granular structure; friable; few fine roots; abrupt smooth boundary.
14514	B _{21t}	7-17	Brown to dark brown (7.5YR 4/4) silty clay loam; moderate fine and medium subangular blocky structure; friable to firm, slightly plastic; few fine roots; few fine dark soft concretions; clay films on ped faces; few thin light brownish gray (10YR 6/2) silt coatings; gradual smooth boundary.
14515	B _{21t}	17-25	Same as above horizon. Horizon divided for characterization purposes only.
14516	B _{22t}	25-37	Brown to dark brown (7.5YR 4/4) heavy silt loam; macrostructure is weak to moderate medium prismatic which breaks to moderate fine and medium subangular blocky; friable; slightly plastic; few fine roots; patchy clay films on ped faces; when dry, light gray (10YR 7/2) silt coatings on ped faces and in cracks; few manganese coatings and few fine soft manganese concretions; gradual smooth boundary.
+ ·	B23t 37	bres stru (dry few coat	on to dark brown (7.5YR 4/4) silt loam; macro- acture is weak to moderate prismatic which also to weak fine and medium subangular blocky acture; friable; common light gray (10YR 7/2) by) silt coatings on ped faces and in cracks; fine clay films on ped faces; few manganese ings and few fine manganese concretions; few croots; gradual smooth boundary.
14518	823t 49-		as above horizon. Horizon divided for acterization purposes only.

SOIL TYPE Memphis silt loam LOCATION Warren County, Mississippi

SOIL NOS.

S56M18875-1 LAB. NOS. 8961-8969

**************************************	65 61 55 64 64 64 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1B1	ameennakan B	PARTI	CLE-SIZ	E DISTRIB	UTION (in		r cent)	3A1		hiteritarias, easigitate
DEPTH		VERY				VERY			į		2A2	TEXTURAL
	HORIZON		COARSE SAND	MEDIUM SAND	FINE	FINE	SILT	CLAY	ļ ī		> 2	CLASS
}		2.1	1-0.5	0.5-0.25	0.75-7.10	0.10-0.05	0.05-0.002	< 0.002	0.2-0.92	0.02-0.002		
0-2	Αp	₡0.1	0.2	0.1	0.2	0.8	78.7	20.0	45.8	33.8		sil
2-5	B21t	<0.1	<0.1	<0.1	<0.1	0.6a	68.2	31.2	37.5	31.3	-	sicl
5-14	B22t	<0.1	<0.1	<0.1	<0.1	0.8a	71.2	28.0	41.3	30.7	-	sicl
14-28	1323t	<0.1	<0.1	<0.1	<0.1	1.la	76.1	22.8	46.2	31.0	-	sil
28-39	B24t	<0.1	<0.1	<0.1	<0.1	l.la	78.5	20.4	47.0	32.6	-	sil
39-53	B31t	<0.1	<0.1	<0.1	<0.1	0.9a	81.6	17.5	49.4	33.1	-	sil
53-65	B32t	<0.1	<0.1	<0.1	<0.1	1.0a	83.6	15.4	51.0	33.6	-	sil
65-80	Cl	<0.1	<0.1	<0.1	∞.1	0.8a,	86.4	12.8	53.3	33.9	-	sil
80-05+	آ خې∣	≤0.1	≤n_L_	⊴ 0.1	1_ن	0.7a	86.6	12.7	150-F	36.0	-	<u>sil</u>

Soil Type: Memphis silt loam

Soil Nos.: 856Miss75-1

Iccation: Warren County, Mississippi, 10 miles northeast of Vicksburg, Mississippi in northwest quarter of southwest quarter, Sec. 17, T17N, R5E, photo AVM-2G-184.

Vegetation and Use: Hardwood forest with some understory of sweetgum, dogwood, locust, etc. (This land appears to have

been cultivated probably 100 years ago.)
Slope and Land Form: Ridge top with slopes 5 and 8 percent, side slopes broken topography.
Drainage and Fermeability: Well drained. Moderately permeable.

Parent Material: Loess.

Collected and Described by: Joe Kubota and V. H. McGehee, April 16, 1956.

Horizon and Lincoln Iab. No.

O to 2 inches. Dark reddish brown (5YR 2/2 moist) silt loam mixed with dark brown (7.5YR 3/2 moist) silt loam; and very dark brown (10YR 2/2 moist); weak medium and fine granular structure; friable; many roots; **Ap** 8961 clear smooth boundary.

121t 2 to 5 inches. Dark reddish brown to reddish brown (5YR 3/4 and 4/4 moist) silty clay loam; weak to 8962 moderate fine and medium subangular blocky structure; friable; plastic and sticky when wet; many fine roots; clear smooth boundary.

5 to 14 inches. Dark reddish brown to reddish brown (5YR 3/4 and 4/4 moist) silty clay loam; weak to moderate medium subangular blocky structure; friable to firm; plastic and sticky when wet; many fine dark colored stains (manganese) occur as coatings on peds; many fine roots; few coarse roots; clear B22t 8963 smooth boundary.

14 to 28 inches. Dark reddish brown (5YR 3/4 moist) light silty clay loam; moderate medium subangular #23t blocky structure; friable; plastic and sticky when wet; many fine roots and worm casts; clear smooth

B24t 28 to 39 inches. Dark reddish brown to dark brown (5YR 3/4 and 7.5YR 4/4 moist) heavy silt loam; moderate medium subangular blocky structure; friable; slightly sticky, slightly plastic; many fine roots; clear 8965 smooth boundary.

39 to 53 inches. Dark brown (7.5YR 4/4 and lOYR 5/4 dry) silt losm; weak medium subangular blocky peds B31t 8966 having dark brown interiors and surfaces coated with bleached silt; slightly plastic, slightly sticky when wet; slightly hard when dry; many fine roots; clear smooth boundary.

B32t 53 to 65 inches. Dark yellowish brown to yellowish brown (10YR 4/4 and 5/4 dry) silt loam; soil appears 8967 massive in place; breaks out into very coarse subangular blocky to prismatic peds; friable; slightly plastic, slightly sticky; few fine roots; clear wavy boundary.

65 to 80 inches. Dark brown (10YR 4/3 moist, 5/4 dry) yellowish brown silt loam; soil massive in place; 8968 very friable; slightly plastic, slightly sticky; numerous fine and medium pores; some pores and fine cracks coated by reddish brown (5YR 4/3) clay skin; few fine woody roots; clear wavy boundary.

80 to 92 inches plus. Dark brown (10YR 4/3 moist) yellowish brown (10YR 5/4 dry) silt losm; massive in place; friable; slightly plastic, slightly sticky when wet; few fine and medium pores; bleaching along fine channels; few fine roots; few fine faint strong brown stains. 8969

SOIL	SURVEY	LABORATORY	Lincoln,	Nebr	March 1959
SOIL		umphis L lt loam	OCATION	. WarrenCo.	nty, Mississippi
	SOIL NOS.	556Miss75-2	LAB.	Nos.	8970-8978

	i	lBla		PARTI	CI.E-SIZ	F DISTRIB	NTION (in	mm.) (pe	r cent)	*****	341	į
DEPTH INCHES	HORIZON	VERY COARSE SAND 2-1	COARSE SAND 1-0.5	MEDIUM SAND 0.5-0.25	FINE \$AND 0.25-0.10	VERY FINE SAND 0.10-0.05	SILT 0.05-0.632	CLAY < 0.002	0, 2-0,02	0,02-0 ,0 02	2A2 > 2 .	TEXTURA CLASS
0-3	Al	0.2a	0.3a	0.2	0.5%	1.6b	88.5	8.7	54.5	35.9	_	si
3-9	A2	<0.1	<0.1	<0.1	0,1	1.16	89.8	9.0	55.8		-	Bi
9-13	B2lt	<0.1	<0.1	<0.1	<0.1	0.6ъ	71.2	28.2	42.2	29.6	-	sicl
13-23	B22t	<0.1	<0.1	<0.1	<0.1	0.60	70.0	29.4	41.0	29.6	-	sicl
23-31		∞.1	<0.1	<0.1	<0.1	0.9ъ	75.6	23.5	46.2	30.3		sil
31-41		0.1	<0.1	<0.1	<0.1	1.2b	78.0	20.8	48.4	30.8	-	sil
41-51		<0.1	<0.1	<0.1	<0.1	1.65	80.9	17.4	51.7	30.8	-	sil
51-67		<0.1	<0.1	<0.1	<0.1	1.1b	83.2	15.7	52.6	31.7	-	sil
67-77	C2	<0.1	<0.1	<0.1	0.1	1.30	8.48	13.8	54.2	32.0	-	sil
P\$4 * \$0 T 0 D 4 D 10 3 * 0 2 *	Ha		ORG	NIC MA	TTER	Free		***********	***************************************	MOIST	URE TE	ENSIONS
8Cla	1:5		6Ala ORGANIC CARBON	6Bla	C/N	Iron Fe ₂ 03		CoCO3 equiv- alent	•	1/10 ATMOS.	1/3 ATMOS.	4B2 15 ATMOS
1:1			×	%		6Cla		%		%	75	5
5.7	1		3.76	0.209		0.6						6.7
4.9			0.46	0.043		0.7						3.7
4.9	!		0.26	0.040		1.7						11.3
5.0		ļ	0.18	0.034		2.0						12.2
5.1	į		0.12	0.028		1.9						10.2
5.2			0.09			1.7						9.3
5.4			0.09	,		1.6						8.6
5.5	1	Ī	0.08			1.7						7.7
5.6	•		c.08			1.6						7.2
5Ala	141740000000000000000000000000000000000	EXTRAC	TABLE (CATIONS	5 Bla	BASE SAT	5 C 3	5Bla	5A3a	Ca/Mo		

Soil Type: Memphis silt loam Boil Nos.: 856 Miss-75-2

Incation: Warren County, Mississippi, 19 miles northeast of Vicksburg in northwest quarter of southwest quarter, Sec. 17, TLTM, R5W, photo AVM-1G-56.

Wegetation and Use: Hardwood forest with some understory of locust, dogwood, wild cherry, holly, switchcane, ivy

and laurel.

Slope and land Form: Ridge top with 2 to 5 percent slope; side slopes are broken topography. Brainage and Fermesbility: Well drained. Moderately permeable.

Parent Material: Loss.

Collected and Described by: Joe Kubota and V. H. McGehee, April 16, 1956.

Hortzon and Lincoln Lab. No.

1 to 0 inch. Leaf litter of cak leaves with some gum, elm, dogwood, and locust leaves.

0 to 3 inches. Dark gray to dark grayish brown (10YR 4/1 and 4/2 moist) silt loam intermixed with material from A2; weak fine and medium granular structure; friable; many fine roots; clear smooth 8970

3 to 9 inches. Dark brown to brown (10YR 4/3 and 5/3 moist) silt loam; weak medium and fine granular A2 8971 structure; friable; few worm casts and fine fingers of Al material from above; numerous fine roots; many medium roots: clear smooth boundary.

9 to 13 inches. Dark brown to brown (7.5YR 4/4 and 5/4 moist) silt loam; weak fine subangular to angular E2lt blocky structure; firm to friable; plastic and sticky when wet; many fine woody roots and numerous fine fibrous roots: clear smooth boundary.

13 to 23 inches. Bark brown (7.5TR $^{4/4}$ moist) silt loam; moderate medium and coarse subangular blocky structure; firm to friable; plastic and sticky when wet; few dark colored manganese coatings; numerous 8973 fine and medium roots; clear smooth boundary.

B23t 23 to 31 inches. Bark brown (7.5YR 4/4 moist) heavy silt loam; weak to moderate medium and coarse sub-angular blocky structure; friable; slightly plastic, slightly sticky when wet; numerous fine roots; clear smooth boundary.

B24t 8975 31 to 41 inches. Dark brown (7.5 YR 4/2 and 4/4 moist) silt loam; weak medium and coarse subangular blocky structure; friable; slightly plastic, slightly sticky when wet; manganese coatings on ped faces; numerous fine roots; clear smooth boundary.

41 to 51 imches. Dark brown (7.5YR 4/2 and 4/4 moist) silt loam; soil appears massive in place but has B3t 8976 many fine cracks; breaks along these tend to produce some weak, medium to fine subangular peds; friable; slightly plastic, slightly sticky; few manganese coatings on ped faces; many fine roots; clear amouth boundary.

51 to 67 inches. Dark brown (7.5YR 4/4 moist) silt losm; soil massive in place; friable; slightly CI. 8977 plastic, slightly sticky when wet; few to many fine roots; clear smooth boundary.

67 to 77 inches. Dark brown (10YR 4/3 moist) yellowish brown (10YR 5/4 dry) silt loam; massive in place; friable; few fine roots; this horizon is dry and has not been wet by seasonal rains. 8978

SOIL	SURVEY	LABORATORY	Lincoln,	Nebr.	July 1959
SOIL	TYPE	Memphis LC silt loam	CATION	Warren County,	Mississippi

SOIL NOS. S59Miss-75-1 LAB. NOS. 9921-9928

,	1B	la	PARTI	CLE-SIZ	E DISTRIB	UTION (in	mm.) (p	r ceut)	3A1.		++++ +++++++++++++++++++++++++++++++++
HORIZON	VERY COARSE SAND	COARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY			> 2 > 2	TEXTURA CLASS
	2-1	1-0.5	0.5-0.25	Q. 25-Q. 10	0.10-0.05	0.05-0.002	< 0.002	0.2-0.02	0.02-0.002		
Apo	0.la	0.la	0.la	0.2a	1.2b	87.9	10.4	60.7	28.5	•	si
	<0.1	0.1c			0.8c		18.8			-	sil
Bl.			<0.1	0.10			20.2	42.6		-	sil
B21t	<0.1	<0.1	<0.1	0.10	0.50	74.9	24.5	40.6		-	sil
B22t	<0.1	<0.1	<0.1	0.10	0.9c	75.2	23.8	42.1	34.1	-	sil
	⋖0.1	<0.1	<0.1	0.1c	0.9c	76.4	22.6	43.7	33.7	-	sil
_	<0.1	<0.1	<0.1	<0.1	0.9c	77.9	21.2	43.9	34.9	-	sil
C5	<0.1	<0.1	<0.1	∞.1	0.7c	81.3	18.0	44.4	37.6	-	sil
	194555444444444				***************************************	•	T-V P(B)				
PH					1						4B2
					Iron			. •	<u>.</u>	_	ı
1;5	1:10	ORGANIC CARBON	NITRO-	C/N	B- 0 d		20-cm	, O. D. ,	4	-	ATMOS.
-,,-		t .	į		11e2U37	2/20	a/00	0/00			-
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		2	0.041							_	10.3
				ì		1.70	4.73	1.02	20	2-7	
			•	į		1	Ì]			9.8
		4	<u>}</u>		•	3 45	1 10	1 1.7	17	97	9.5
		0.11			1.9	1.47	1.40	1.71	-1	-1	8.3
(may)444(41.1475).(4	EXTRAC	TABLE	CATIONS		BASE	1		Sun	Ce/Mg	pagnotra (carectot	ļa
L						· ·	F	Ext.	• • •		İ
ONZO	-	1	I	•			Bases	Cat-	1		
Ca	Mg	H	No	K		1		ions	4		ļ
<u> </u>	williequiv	alents per	100g. sol	i	<u>.</u>		5Bla.		8p3]
4.7	2.0	5.2	<0.1	0.4]
4.4	ī		+	1		47				ŗ	
1 111	2.2		T		60	40	5.6	14.1	1.4		
4.2	1	9.8			61	44	7.6	17.4	1.4		
		9.0			80	52	9.8				
6.6	4.1	7.3			88	60	11.2				
6.7					85	60	11.0	18.3	1.8	Ţ	
6.2		6.5			81	60	9.6	16.1	2.1	 <u>\$</u>	Ĺ
										real real region in marrie and	
1			i_	Ē							
				concr			į			ļ	1
nommer.	Light	and da	rk bro	yn com	er. (Fei)	ļ.				
nmon .	ight and	ind da i dark	k bro brown	yn com	er. (Fei) few bl	ck co	per. M	98		
nommer.	ight and	ind da i dark	k bro brown	yn com	er. (Fei) few bl	ck co	per. M			
	Ap A2 B1 B21t B2t B3t C1 C2 PH 1.5 6 N2b C4 4.7 4.4 3.1 4.2 5.7 6.6 6.7	PH	HORIZGI COARSE SAND 2.1 1-0.5 AD	VERY COARSE MEDIUM SAND 2.1 1.9.5 0.5-0.25	HORIZGI COARSE COARSE SAND SAND SAND 2.1 1-9.5 0.5-0.25 0.25-0.10 AD	HORIZCH COARSE SAND SAND SAND SAND SAND SAND SAND SAND	Northern Coarse Medium Fine Sand	HORNZCIA COARSE COARSE SAND	Note	NORIZON COARSE SAND SA	Coarse Coarse MeDium Fine SAND S

Soil Type: Mamphis silt loam Soil Nos.: S59Miss-75-1

Location: Warren County, Mississippi, on State Highway 27, about 8 miles southeast of Vicksburg. Center of NE 1/4 Sec. 10, T15N, RME. Thoto AVM-4N-12O.

Vegetation and Use: Pecan grove about 25 years old with native grass and weeds.

Slope and Land Form: Cently sloping(4 percent) toward northwest on ridge in steeply sloping loess area.

Drainage and Permeability: Well drained. Permeability is moderate.

Parent Material: Loess.
Collected by: J. S. Allen, January 28, 1959.
Described by: R. C. Carter, January 28, 1959.

Horizon and Lincoln lab. No.

0 to 7 inches. Dark brown (10YR 4/3) to yellowish brown (10YR 5/4) silt loam with weak medium to coarse 9921 crumb structure; discontinuous layer of dark brown (7.5YR 4/4) silt loam about 1 inch thick at 6-inch depth; very friable; numerous fine grass roots; boundary clear and smooth.

7 to 10 inches. Dark yellowish brown (10YR 4/4) to yellowish brown (10YR 5/4) silt losm with weak fine 9922 to medium subangular blocky structure; very friable; numerous grass roots and few tree roots; few fine manganese concretions; boundary abrupt and smooth.

10 to 18 inches. Bark brown (7.5YR 4/4) silt bom with weak fine to medium subangular blocky structure; friable; few worm and root channels filled with soil from above horizon; numerous grass and fine tree 9923 roots; few fine and medium manganese concretions and coatings; boundary clear and smooth.

18 to 32 inches. Bark brown (7.5YR 4/4) silty clay loam with moderate fine and medium subangular blocky structure and many thin clay films on peds; friable to firm; many grass roots and few tree roots; many manganese coatings on ped faces; boundary gradual and irregular. B21t 9924

SOIL SURVEY LABORATORY Lincoln, Nebr. July 1959

SOIL TYPE Memphis LOCATION Warren County, Mississippi silt loam

SOIL NOS. S59Miss-75-2. LAB. NOS. 9929-9937

************	<u> </u>	1Bla		PARTI	CLE-SIZ	E DISTRIB	UTION (in	mm.) (p	w cent)	3Al.	*****************	9 54 6 64 8 6 6 5 6 6 6 6 6 7 8 6 6 6
DEPTH	•	VERY				VERY FINE		İ			2A2	TEXTURAL
DEPTH	HORIZON	COARSE	COARSE SAND	MEDIUM SAND	FINE	SAND	SILT	CLAY			> 3	CLASS
		2.1	1-0.5	0.5-0.25	0.25-0.10	0.10-0.05	0.05-0.002	< 0.002	0, 2-0.02	002-000 2		
0-4	Ap	0.la	0.la	<0.1	<0.1	0.8a	89.3	9.7	58.7	31.4	_	si
4-9	A2	<0.1	<0.1	<0.1	∞.1	0.40	79.9	19.7	43.2	37.1	-	sil
9-13	B21t	<0.1	<0.1	<0.1	∞.1	0.5ъ	73.0	26.5	37.9	35.6	- (sil/sic
13-21	B22t	<0.1	<0.1	<0.1	<0.1	0.66	70.7	28.7	38.5	32.8	-	sicl
21-30	B23t	<0.1	<0.1	0.16	0.25	0.76	72.8	26.2	40.5	33.1	-	sil
30-39	B24t	<0.1	∞.1	<0.1	<0.1	1.06	75.5	23.5	42.2	34.3	-	ail.
39-49	B3t	<0.1	<0.1	<0.1	∞.1	0.86	78.0	21.2	43.8	35.0		511
49-61	Cl	<0.1	∞.1	∞.1	<0.1	0.60	81.2	18.2	43.3	38.5	-	sil
61-76	C2	<0.1	<0.1	<0.1	<0.1	0.56	80.1	19.4	41.5	39.1	-	sil
174004464101077777	pH		ORG/	NIC MA	TTER	Free	B	JIK DET	SITY	MOIST	URE TE	NSIONS
8Cla			6Ala	6Bla		Iron	4Ala	4Alc	4Alb	7B 7	4B3	4B2
	1:5	1:10	ORGANIC CARBON	NITRO-	C/N	Fe ₂ 0 ₃ %	Field	30-cm	0.D.	Field	. 30-cm	
t:1	""		*	*	-	601a	State	g/cc	g/cc	State	%	9
6.0		******	1.00	0.092	11	0.9		Ī				4.5
5.8			0.33	0.042	h	1.6	1.44	1.41	1.46	20	26	8.2
	<u>. </u>	ļ.		287		_C.]		t	j '	<u> </u>		73 2

Soil Type: Memphis silt loam

Soil Nos.: 559Miss-75-2

Iocation: Warren County, Mississippi, on State Highway 27 about 9 miles southeast of Vicksburg. Center of W 1/2,

ME 1/4 SE 1/4, Sec. 14, T.5N, N+E. Hoto AVM-4W-164.

Vegetation and Use: Bermudagrass and crimson clover pasture for about 6 years.

Slope and Iand Form: Gently sloping (3 percent) toward northeast. On ridge in steeply sloping losss area.

Drainage and Permeability: Well drained. Permeability is moderate.

Rurent Material: Loss.

Collected by: J. S. Allen, January 28, 1959.

Described by: R. C. Carter, January 28, 1959.

Horizon and Lincoln Lab. No.

0 to 4 inches. Mixed light yellowish brown (10YR 6/4) and light olive gray (5Y 6/2) silt loss with weak medium and coarse crumb structure; very friable; numerous fine grass roots; boundary abrupt and smooth. Ар 9929

4 to 9 inches. Yellowish brown (10YR 5/4) silt loss with weak fine to coarse crumb structure; friable; numerous grass roots; has about 1-inch layer of A2 included in this horizon; boundary abrupt and smooth. 9930

9 to 13 inches. Dark brown (7.5YR 4/4) to strong brown (7.5YR 5/6) heavy silt bam with weak fine and medium subangular blocky structure; few clay films on peds; friable; many grass roots; few fine manganese coatings on ped faces; boundary clear and smooth. **B21**t 9931

B22t 13 to 21 inches. Bark brown (7.5YR 4/4) silty clay loss with moderate medium subangular blocky sturture; and many thin clay films on peds; friable to firm; many grass roots; few fine manganese coatings on 9932 ped faces; boundary arbitrary.

21 to 30 inches. Dark brown $(7.5 \mathrm{YR}\ 4/4)$ silty clay loam with moderate medium subangular blocky structure and many thin clay films on ped faces; friable to firm; many grass roots; many manganese coatings on 9933 ped faces; boundary clear and wavy.

30 to 39 inches. Dark brown (7.5YR 4/4) silt loam with few fine distinct mottles of light olive gray (5Y 6/2); weak medium to coarse subengular blocky structure with few thin clay films on ped faces; friable; many grass roots; few light olive gray (5Y 6/2) silt coatings on ped faces and in cracks; many B24t 9934 fine manganese concretions and coatings on ped faces; few fine pores; arbitrary boundary.

B3t Dark brown (7.5YR 4/4) silt loss with few to common fine distinct mottles of light olive gray (5Y 6/2); weak medium to coarse subangular blocky structure with few thin clay films on ped 9935

cracks; many manganese coatings on ped faces; few fine pores; boundary clear and smooth.

49 to 61 inches. Dark brown (7.5YR 4/4) silt loam; structureless; very few clay skins on faces; friable; very few grass roots; few light olive gray (5Y 6/2) silt coetings on faces and in cracks; few fine mang-9936 anese concretions: boundary arbitrary.

61 to 76 inches. Dark brown (7.5YR $^{4}/^{4}$) silt loam; ctructureless; slight amount of clay movement in cracks; friable; very few grass roots; few light olive gray (5Y $^{6}/^{2}$) silt coatings on faces and in 9937 cracks; few manganese coatings on faces.

Remarks: Colors are for moist soil.

SOIL Myatt silt loam

SOIL Nos. S63Miss-37-2 LOCATION Lamar County, Mississippi

SOIL SURVEY LABORATORY Beltsville, Maryland

_ LAB. Nos. 63286-63291

	I	1316						Siza cia	ss and part			3A1						
			Total	,				Send	,	SI	t						rse fragme	nts
Depth (In.)	Herizon	Sand (2-0.05)	S#t (0.05 0.002)	Clay (= 0.002)	Very coarse (2-1)	Coarse (1-0.5)	Medium (0.50.25)	Fine (0.25–0.1	Very fine (0.1–0.05)	0.05-0.02	int. III (0.02-	Int. II (0.2-0.02)	(2-0.1)			2A2 > 2	2 - 19	19 · 76
	l	<u></u>	1 0.0027			Po	. of =< 2 i		· ·	<u> </u>	0,002)	· 	<u> </u>	L		Pct.		76mm
0-6	Al	T"	54.7	8.6	0.3	4.6	11.2	14.2	6.4		36.4	30.8				tr.		
6-12	A26		53.0	9.4	0.4	4.7	11.2	14.7 11.7	6.6		35.7 36.2	30.2				tr.		
15-18	Ble	ļ	51.4	18.8	0.4	3.5	8.8	11.7	5.4	<u> </u>		25.7				.tr.		
18-29	B21g		43.5 40.8	25.5	0.2	3.3 2.8	8.5	13.4	5.6		29.9	25.0				tr.		
12-60+ 12-60+	B22tg B23tg		48.5	34.3 41.0	0.2	1.1	2.8	10.7	4.0		29.4 36.7	19.9 16.1	1			tr.		
<u> </u>			40.5	44.0	Via.	_ ***	2.0	3.9	5,2		70.1	10.1		******		tr.	7	
	 	ļ							 						4			
	6Ala	6B2a	-	_		6Cla		Bulk densi	tv		· v	Valer conte	nt		<u> </u>		pH	<u> </u>
			l			Ext.		4Ale	4Alh	1		4B10	482	1			801c	80 La
Depth (in.)	Organic	Mitrogen	C/N		Cerbonate as CeCO ₃	Iron as Fe		1/3 B a r	Oven- dřy			1/3 Bar	15 Bar	,			TIN KCI	(1 1) H ₂ O
~ ~	Pot.	Pet.	<u> </u>	<u> </u>	Pat.	Pct.	g/ce	g/c≠	g/ec	<u> </u>	Pet.	Pet.	Pct.		 -	····	-	↓ <u> </u>
6-12 6-12	1.98	0.077	56			tr.		1.48	1.48		l	15.7	4.8					4.0
12-18	0.25	1				0.3		1.70	1.74		I	15.8	7.1					4.1
18-29	0.12	1		1		0.7		1.61	1.76			18.8	9.9		† –	2	1	4.2
29~HZ	0.11					1.1		1.62	1.76			20.5	13.6					4.3
<u> 12-60+</u>	0.11			<u> </u>		1.1		1.52	1.78		<u> </u>	26.9	16.2_		4.			4.2
	 	<u> </u>					ļ.,		,			<u></u>			ļ			
	ļ.	<u> </u>	<u> </u>	<u> </u>						<u> </u>		<u> </u>		<u> </u>	ļ	ļ		
	6N2a	Extractes 602b	6P2s	5Bla 692a		6H2a		DEC .	601a								Rese sat	Lurarion .
Septh (in.)	Ca	Me	Na Na	K	Sum	Ext. Acid	Sum Cat-		Ext.								Sum Cat-	
		I	l 	<u> </u>	 meg/100	1 - 03	ions	<u> </u>	A1								ions Pct.	PrI
0-6	0.1	0.2	tr.	tr.	1000100	8.9	9.2		3.5							1	3	
6-12	tr.	0.1	tr.	tr.		4.5	4.6		3.6								ĺź	
12-18	tr.	ع ہ	0.1	tr.	L	7.2	7.5		5.0	.				4		,	4	
18-29	tr.	0.3	0.2	tr.		9.9	10.4		6.4			١.					5	
29-42	tr.	0.7	0.4	0.1		13.0	14.2		9.0								8	
10.60 est	<u>8.o.</u>	1.6.	0.7	0.2		14.8	18.1		11.1		-	 		-/ -41			18	
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		l								L .	L		L	l			l _	1.
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	+	 	 				<u> </u>			`		<u> </u>	l		<u> </u>		1 4-0	
Depth (In.)																		
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Soil Type: Myatt silt loam Soil No.: S63Miss-37-2

Location: 3 miles southeast of Highway 11 on Little Black Creek; 75 feet west of abandoned county road; 1/4 mile southwest of bridge on interstate Highway 59 over Little Black Creek; SW 1/4, NE 1/4, Section 34, Township 2N, Range 14 west, Lamar County, Mississippi, aerial photo: CLQ-6V-174.

of watergrass. Slope and Land Form: 0 to 2 percent Horizon and **Beltsville** Lab. No. O to 6 inches. Dark gray (10YR 4/1) silt loam; weak medium granular structure; friable; many fine A1 63286 roots; few worm casts from the A2 horizon; strongly acid; abrupt wavy boundary. 6 to 12 inches. Gray (10YR 5/1) silt loam with few fine distinct mottles of light yellowish brown (2.5Y 6/4); weak fine subangular blocky structure; friable; few strong brown (7.5YR 5/6) root stains; few fine light gray (10YR 7/1) streaks of fine sand; few fine roots; few fine voids; few worm casts 63287 from the Al horizon; the peds are slightly brittle; strongly acid; clear wavy boundary. B1g 63288 Gray to light gray (10YR 6/1) loam with few medium distinct mottles of yellowish brown (10YR 5/6); weak medium subangular blocky structure; friable; few fine light gray (10YR 7/1) streaks of fine sand and a small percentage of silt; few fine roots; the peds are slightly brittle; strongly acid; clear wavy boundary. 18 to 29 inches. Gray to light gray (10YR 6/1) loam to silt loam with common fine and medium distinct mottles of yellowish brown (10YR 5/8) and light yellowish brown (2.5Y 6/4); moderate medium angular B21g 63289 blocky structure; friable; few fine roots; few coarse quartz grains; few small voids; strongly acid; gradual wavy boundary. 29 to h2 inches. Gray to light gray (10YR 6/1) clay loam with common medium distinct yellowish brown (10YR 5/6) strong brown (7.5YR 5/6), and light yellowish brown (2.5Y 6/h) mottles; moderate medium angular and subangular blocky structure; coarse prismatic peds in place; friable to firm; few reddish brown (5YR h/h) root stains; few fine roots; fine voids; some clay movement; strongly B22tg 63290 acid; clear wavy boundary. 12 to 60 inches. Gray to light gray (10YR 6/1) silty clay loam with common medium and coarse distinct mottles of pale yellow (2.5Y 7/4), and strong brown (7.5YR 5/8); strong medium angular blocky structure; firm; clay or silt coatings on ped faces; some clay movement or pressure faces; few fine roots; few B23tg 63291 small voids: strongly acid.

SOIL Myatt silt loam SOIL Nos. S63Miss-37-4 LOCATION Lamar County, Mississippi

SOIL SURVEY LABORATORY __Beltsville, Maryland _____ LAB. Nos. __63292-63298 _____

(ln.) 1 1/2-5 A		LB1b						Size clas	s and parti	cie diamete	ır (mm)	3A1					
(ln.) 1 1/2-5 A			Total					Sand		Sil	t					rse fragmei	ats
1 1/2-5 A	Horizon	Sand	Şilt	Cłay	Very coarse	Coarsa	Medium	fine	Very fine		Int. III	Int. 🎞			2A2 >= 2	2 - 19	19-76
		(2-0 05)	(0 05 0 002)	(< 0.002)	(2-1)		(0.5-0.25)	l	(Q 1-0.05)	0 05-0.02	(0.02 0.002)	(0.2-0.02)	(2-0.1)			PC PC	t. of
		-	67.0	16.3	0.2	1.0	:.of << 2± 2.7		B 2	T	41.7	lar o			Pct.	/	6mm
	and B		67.3	19.6	0.3	0.8	1.9	4.5	8.3 6.8		45.1	35.8 30.7			tr.		
12-17 B	31g		60.0	29.4	0.7	0.7	1.5	3.3 2.6	5.1		41.1	25.3			tr.		
	21	-	57.7	33.1	0.3	0.4	1.4	2.3	4.8		40.3	23.3	•		tr.		
	322g		51.7	40.3	tr.	0.4	1.1	2.1	4.4		35.8	21.3			tr.		
	323tg		54.8	37.6	1.0	0.7	1.2	1.7	3.0		39.4	19.2			tr.		
51-59+ B	324tg		48.3	35.1	0.6	1.5	3.8	6.0	4.7		36.0	19.9			tr.		
	_					_											
1	6Ala	6B2a				601a		Bulk densit			`	Vater conte				ρH	
Depth	Organic	Nitrogen	G/N		Carbonate	Ext.		4Ale	4Alh			4Blc	4B2				801a
(fn)	carbon				as CaCO ₃	1ron		1/3	Oven-			1/3	15				(1:1)
		1	1	1		8.5		Bar	dry	l	1	Bar	Bar				H20
	Pct	Pct.	1	l	Pct	Fe Pct.	g/cc	g/cc	g/cc	l	Pct.	Pct.	Pct.				
1 1/2 5	1.08	0.058	19		100			1.42			1447						j, 2
	0.32	0.050	••	l		0.6		1.56	1.44	l	1	21.0 19.9	6.8 7.3				4.3
12-17	0.23					1.1		1.56	1.66			21.0	11.1				1.4
	0.17		-			1.1		1.52	1.67			23.0	12.6	1			4.5
23-35	0.14					0.8		1.51	1.78			24.1	15.5				4.5
35-51	0.09					1.3		1.57	1.78			23.1	15.6				4.5
51-59+	0.08					1.0		1.60	1.82			21.3	14.4				4.0
						**										Ļ.	
L		Extractab		5B1a		6H2a		₿C	6G1d							Base sat	uration
Depth	6N5q	6 02b	6P2a	6Q2a			5A3a									5°3	
(in.)	Ca	Mg	Na	к	Sum	Ext. Acid-			Ext.							Sum Cat-	
L		l	l	l	 meg/100 g	ity ·	lons	I	A1							ions	Pct.
1 1/2-5	0.1	0.8	0.1	T0.1		9.5	10.6	T	4.2			Ì		<u> </u>		10	-
5-12	tr.	0.7	0.1	tr.		8.7	9.5		4.8							8	
12-17	tr.	1.1	0.2	0.1		13.0	14.4		8.7							10	
17-23	tr.	1.3	0.3	0.1		15.1	16.8		10.4							10	
23-35	tr.	1.9	0.6	0.2		18.4	21.1		13.8							13	
35-51	-	2.4	1.2	0.2	_	17.6	21.4		13.4			Ļ		<u> </u>		18	_
51-59+	0.3	2.7	1.3	0.2		15-4	19.9		11.8							23	
-		<u> </u>				•		_		-					1	+	
- A\ -		,	"											<u> </u>			
Depth (in)										,							

Soil type: Myatt silt loam

Soil No.: S63Miss-37-4

Location: 1/4 mile SW of holdes over Black Crosk on Highway 589. SE 1/4. NW 1/4. Section 12. Townshin # N.

Slope and Land Form: 0 to 2 percent

Horizon and Beltsville Lab. No.

O to 1 1/2 inches. Very dark gray (10YR 3/1) silt loam; weak thin platy breaking into weak fine granular structure; friable; many worm casts from the A2 horizon; many fine and medium roots; strongly acid; clear smooth boundary. Al Not sampled

1/2-to 5 inches Mottled many (1078 5/1) 14 obt horantich const. (1078 6/2) . Finons home (2 678 5/8).

DEPTH HORIZON COARSE COARSE MEDIUM FINE SAND SAND SAND	LAB. NOS. DISTRIBUTION (in mm.) (pe VERY FINE SAND SILT CLAY 0.10.0.05 0.05.0.002 < 0.002	2A2 TEXTURAL CLASS
VERY COARSE MEDIUM FINE SAND SAND SAND SAND SAND SAND SAND SAND	VERY FINE SAND SILT CLAY	2A2 TEXTURAL CLASS
1 2.1 1.0.5 0.5.0.25 0.25.0 10		> 2
1 2.1 1.0.5 0.5.0.25 0.25.0 10		
<u></u>		
		, <u>, , , , , , , , , , , , , , , , , , </u>

Soil Type: Ora fine sandy loam

Soil Nos.: 956Miss16-1

Edit Nos.: Spranse-1 Location: Covington Courty, Mississippi, Sec. 36, T9N, R15W, Ref. airphoto CJO-1G-46. Vegetation and Use: Mixed pine and hardwoods with an understory of dogwood, persimmon, sumsc, blackgum, huckleberry

and maple saplings.

Slope and land Form: Gently sloping ridge with northwest exposure (3 percent).

Drainage and Permeability: Moderately well to well drained. Permeability is moderate in the horizons above the

fragipan and slow in that layer.

Farent Material: Coastal plain material.

Collected and Described by: Joe Kubota, M. E. Shaffer, and R. H. Havens, April 11, 1956.

Horizon and Lincoln Lab. Nos

01-02

Thin litter of leaves, principally caks and pine needles.

0 to 3 inches. Very dark provide house (1092 2/2 moist) fine sends less modium to comme and fine 43

3 to 5 inches. Yellowish brown to light olive brown (10YR 5/4 and 2.5Y 5/4 moist) fine sandy loam; A2 8980 medium and fine platy structure with some weak fine subangular blocky peds; friable; root bleaching along fine pores; clear smooth boundary.

5 to 10 inches. Brown to yellowish brown (10YR 5/3 and 5/4 moist) fine sandy loam; weak medium to fine A3 8981 granular structure; friable; few fine roots; many worm casts and pores filled with Al material; clear smooth boundary.

10 to 13 inches. Brown (10YR 4/3 moist) to yellowish brown (10YR 5/4 moist) or strong brown (7.5YR 5/6 moist) very fine sandy clay losm; weak medium to fine subangular blocky structure; friable; clear smooth 8982 boundary.

13 to 24 inches. Yellowish red (5YR 4/8 moist) very fine sandy clay loam; weak to moderate medium to 8983 fine subangular blocky structure; friable; plastic and sticky when wet; clay skins prominent and continuous in pores but faint to patchy around peds; clear smooth boundary.

24 to 32 inches. Yellowish red to strong brown (5YR 4/8 and 7.5YR 5/6 wet) sandy clay loam; weak to 8984 moderate medium and fine subangular blocky structure; slightly sticky, slightly plastic; clay skins

SOIL TYPE Ore LOCATION Covington County, Mississippi fine sendy loam

SOIL NOS. S56M1ss16-2 LAB. NOS. 8987-8996

4066 . 10003 1297 2386823	************	1Bla	*********	PARTI	CLE-SIZ	E DISTRIB	UTION (in	mm.) (pe	r cont)	3A1		
DEPTH INCHES	HORIZON	VERY COARSE SAND	CØARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY			2A2 > 2	TEXTURAL CLASS
		2.1	1-0.5	}	0, 25-0, 10		0.05-0.002	•	0, 2-0.02	0.02-0.002		
0-3	Al	0.4	4.6	11.2	25.2	6.2	46.8	5.6	40.4	26.7		fal
3-7	A2	0.2	3.4	2	23.5	6.6	50.0	6.6	41.3	28.7	_	sil/fs
7-10	A3	0.1	3.4		22.2	5.4	50.2	9.1	40.2	28.2	_	sil/l
10-14	Bl	0.1	2.78		17.5a	4.3b	47.2	20.8	33.0	28.4	-	1
14-22	B21t	0.2	3.ia		20.8a	5.2b	39.6	22.6	33.0	23.8	-	1
22-26	see	0.4	4.8a	12.6a	30.9a	7.4b	31.3	12.6	38.6	18.0		fsl
26-32	Descr.	0.6			36.6a	8.9ъ	26.3	8.5	41.7	14.0	-	fal
32-40		0.4		11.3	33.5	7.0	19.2	24.2	33.1	10.6	-	scl
40-54		0.2	4.5	12.1	33.3	6.5	15.6	27.8	30.4	8.8	-	scl
5472		Ω,.3	**************************************	Maria	40.0	5,2	9.8	27.,2	30.2.			BC]
8cia	PН		6Ala	ANIC MA	1168	Free		į		MO13	TURE TE	,,
OCUE			}	1		Iron		CoCO ₃		1,/10	1/3	432 15
	1:5	1:10	ORGANIC CARBON	GEN	C/N	%Fe ₂ O ₃		equiv-		ATMOS.	ATMOS.	ATMOS.
1:1			*	~	1	601a		%		%	*	*
5.2			2.03	0.083	24	0.5				-	 	3.5
5.2			0.78	0.034		0.5			1		ţ	3.5 2.8
5.2			0.27	0.027		0.8			Ì		•	3.3
5.0			0.23	0.031		2.0	<u> </u>				1	7.6
5.0			0.10	0.028		2.3						8.3
5.0			0.10	0.020	į	1.5						4.9
5.0	1		0.07	į		0.8]			İ	İ	3,2
5.1			0.07]	İ	2.6]			Ì	8.8
5.0			0.04		•	2.8	•				Ĭ.	9.8 10.1
4.9	444444444444444444444444444444444444444		0.02	 	1 1	2.5	F.02	C203 -	FA2-	35 /Mar		1.10.1
5Ala		EXTRAC				BASE SAT.	503	5Bla Sum	5A3a. Sum	Ca/Mg		•
CATION EXCHANGE	6 xe b	602ъ	б⊞а	6P2a	692a	NH _L Ac	Base Sert. %	Bases	Cation	_]
CAPACITY	Co	Mg	H	No	K	EXCH.	on Sum	DEPAS	050101	ľ	,	
NH), AC		milliequiv	i ilents per	100g. seli	·——	501	Cations.	me /1004	300	Į l		Ī
7-7	©.1	0.6	8.2	0.1	0.3	12	10	0.9	9.1		[
3.8	0.1	0.8	3.6	40.1	0.2	29	23	1.1	4.7		ĺ	
3.0	0.5	0.8	4.0	0.1	0.2	50	27	1.5	5.5]	J	İ
6.6	0.5	1.6	6.8	0.1	0.2	35	25	2.3	9.1	į	į	I
7.2	0.1	1.9	7.2	0.1	0.2	32	24	2.3	9.5	1 1	1	1
4.2	0.1	1.2	4.8	0.1	0.2	38 33	25	1.6	6.4		Ì	ł
2.4	0.1	0.6	2.8	40.1	0.1	33	22	0.8	3.6		ĺ	
	Ø. 1	1.2		<0.1	0.1	23	18	1.3	7.3	j	1	ļ
6.4	0.1	1.0		0.1	0.1	19	14	1.2	8.4	Ì	1	<u> </u>
5.8	40.1	0.9	6.0	*0.1	0.1	17	14	1.0	7.0	1	ļ	
_ 14			34-			ale saas	/=-	١			ĺ	
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J. PC	TEFG	Pirrer.	MELLE C	LOWIT (- mac	a conce	. /te-mm	1.,	•	•	İ	ŀ
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	,		•	-	•	•	-	•		-	•	-

Soil Type: Ore fine sandy loam

Soil Nos .: 856Miss16-2

Incation: Covington County, Mississippi, 3 miles east of Collins, Mississippi on Highway 84, and about 200 yards north of road in mixed pine-hardwood woods (TSN, R15W, Sec. 16, Ref. airphoto CJO-1G-158).

Vegetation and Use: Mixed hardwood and pine with an understory of dogwood, persimmon, sumac, blackgum and maple and huckleberry.

Slope and land Form: Gently sloping (3 percent) with a northwest exposure.

Drainage and Permeability: Moderately well to well drained. Permeability is moderate in the horizons above the fragipan and slow in that layer.

Parent Material: Coastal plain material.

Collected and Described by: Joe Kubota, M. E. Shaffer, and Y. H. Havens, April 11, 1956.

Horison and Lincoln Lab. No.

IIB3t

8996

O to 3 inches. Very dark grayish brown (10YR 3/2 moist) fine sandy loam; medium to fine crumb structure 8987 friable; many roots; clear smooth boundary.

3 to 7 inches. This horizon is a mixture of soil material from horizons above and below; fine sandy 8988 loam; weak medium to fine subangular blocky structure; very friable; many fine roots; clear smooth boundary.

7 to 10 inches. Yellowish brown (10YR 5/4 moist) very fine sandy loam or loam; weak medium to fine sub-8989 angular blocky structure; very friable; many fine fingers of Al material and B material; few very fine quartz pebbles; clear wavy boundary.

10 to 14 inches. Strong brown (7.5YR 5/6 moist) loam; weak fine and medium subangular blocky structure; 8990 friable; slightly plastic, slightly sticky when wet; few fine roots; clear smooth boundary.

B21t 14 to 22 inches. Yellowish red (5YR 4/8 moist) loam; weak to moderate medium to fine subangular blocky 8991 structure; friable; slightly plastic, slightly sticky; few fine and medium roots; clear smooth boundary.

22 to 26 inches. Strong brown (7.5YR 5/6 moist) loam or light sandy clay loam; weak medium and fine subangular blocky structure; friable; slightly plastic, slightly sticky; few fine yellowish brown mottles; TTROOM. 8992 fine roots; abrupt wavy boundary.

26 to 32 inches. Mottled strong brown (7.5YR 5/6 moist) pale brown (10YR 6/3 moist) and yellowish red (5YR 4/8 moist) sandy loam; weak to moderate very coarse platy structure which breaks to medium and fine plates and medium subangular blocky peds; friable; few fine roots; numerous fine pores; clear wavy IIB23tx and A'2x 8993 boundary.

IIB24tx 32 to 40 inches. Mottled strong brown (7.5YR 5/6 moist) and yellowish red (5YR 4/8 moist) sandy clay 8994 loam; weak to moderate medium and coarse subangular blocky structure that breaks to coarse and medium plates and some small prismatic peds; friable; slightly sticky, slightly plastic; few fine roots; numerous fine pores; vasicular; clear smooth boundary.

IIB25tx 40 to 54 inches. Mottled red (2.5YR 4/8 moist) yellowish brown (10YR 5/8 moist) and yellowish red (5YR 4/8 moist) sandy clay loam; weak coarse prismatic peds that break into moderate fine and coarse sub-8995 angular blocky peds; soil appears massive in place; friable when removed; roots follow ped faces; clear smooth boundary.

54 to 72 inches. Red (2.5YR 4/8 moist) sandy clay loam; soil mass tends to break out into very coarse subangular blocky peds; firm and massive in place; friable when removed; there are a few very larg (1 inch) pores or cracks and a number of very fine pores that are filled with reddish brown (5YR 4/4)

72 to 84 inches plus. By auger. Yellowish red, friable sandy clay loam with yellow, brown, and red mottles in lower part.

nou cupury (apoparony Beltaville, Maryland

	r	. 4-	315					Alus at-		ticle diameter	· (mm·	7.4						
		<u></u>	Total		ı			Sand	us and par	Sili		<u> 3A1.</u>			1	Coa	rse fragme	nts
Depth (In.)	Horizon	\$and (2-0.05)	\$ilt (0.05- 0.002)	Clay (< 0.002)	Very coerse (2-1)	Course (1-0,5)	Medium (0.8-0.25)	Fine (0.25–0.1)	Very fise (0.1-0.05	0.05-0.02	int, 111 (0.02- (0.002)	int, II (0.2–0.02)	(2-0.1)			2A2 > 2	2 - 19	19-70
		-					t. of -< 2		· .	Y 1	36 E	10.6.1				Pét.	~~~	76mm
0-3 3 - 8	Al A2		62.4 68.0	12.4 9.6	0.7	2.4	3.6	8.0 6.7	9.9		58.8	40.1 22.0				tr.		
8-16	B2		64.9	13.2	0.7	2.0	3.1	6.4	9.7		40.1	38.1.				tr.		
16-21	A 12gx		67.2	11.8	0.5	1.7	3.2	6.3	9.3	1	40.9	39.1			Ť	tr.	T '''	
21-33	B'2tgx		56.2	20.5	0.6	2.3	3.1	6.7	10.6		33.9	36.7				tr.		
33-46	Clex	ļ <u>.</u>	53.4	20.3	0.7	2.0	3.4	7.1	13.1	1 1	31.2	39.3	_			tr.		 -
+6-60+	C2x		52.4	20.2	0.1	1.9	3.0	8.0	13.0	ļ	30.1	40.2						
	6Ala	682a		1.50		6Cla		Bulk densit		-		Vatér conte	nt -		 	<u> </u>	pH	<u> </u>
Depth	Organic	Nitrogen	C/N		Carbonate			4A1e	4A1h	1		4Blc	4B2		1	·	8C1c	801a
(in.)	certon	Pet.			es CaCO _S	Iron as Fe	g/ac	1/3 Bar	Oven- dry		Pet.	1/3 Bar	15 Bar Pet				KCT TN T:T	ң ⁵ о
0-3	2.07	0.100	21		704.	Pet:	8/00	1.35	1.38	-	rot.	25.7	6.2			1		4.8
3-8	0.44	0.040	11			0.7		1.60	1.38			18.1	4.1					4.7
8-16	0.15					1.1	<u> </u>	1.56	1.58	<u> </u>		18.2	5.5			L	<u> </u>	4.7
16-21	0.03					1.0		1.74	1.74	'		16.7	5.0					4.8
21-33 33-46	0.10					1.4		1.60	1.66			20.7	8.9					4.7
46-60+	0.05					1.1	<u> </u>	1.70	1.77	† †		18.2	8.6			· -	t	4.5
						_	-		,	 						 -	 	·
			de beses	Bla		6H2a		BC	601a	1						1	Base ta	uration
Depth	6N2d	602ъ	6P2a	602a		Ī	5A3a										5C3	
(in.)	Ca	Mg	No	K	Sum meq/100	Ext. Acid- ity	Sum Cat- ions		Ext.								Sum Cat- ions	Pct.
0-3	0.9	0.5	0.1	0.1		8.1	9.7		1.5	1 1					1		16	
3-8 8-16	0.1	0.3	0.1	tr		5.0	5.5 5.5		2.0								9 4	
8-16 16-21	tr.	0.2	0.1	tr.		5.3	4.9	-	2.8	+		 			+	 -		ļ
21-33	-	0.4	0.1	0.1		8.5	9.1		5.9								7	
33-46	_	0.4	0.1	0.1	i	7.8	8.4		5.9 5.4			•			<u></u>	<u> </u>	Lż.	l
46-60+	0.1	0.5	0.2	0.1		7.5	8.4		5.6		_					ļ	11	-
	Clay Mi	eralo	gy 7AI	b-d			<u> </u>	<u> </u>				<u> </u>	<u> </u>		<u> </u>			
Depth				7A2		ļ .		7A3	a.	Mont.	- Mont	morill	onite.	Int.	Inter	etrat!	ified '	Laver
(in.)	Mt. a	Chl.	Vm. X-ray	Mi.	Int.	Qtz.	K1.	G1bb-	ъ.	Mont. silicat Mi. = } Relativ	tes, C Mica,	MI =	Chlori Kaolin blank	te, Vr	tz.	ermicul Quarta	lite,	- no
	 	-	· ·					Ţ	1	CETECTO	a, t	* trac	e, x .	6me,13	L, xx :	mode	ate,	
	<u>-</u> b/	-	XX XX	-			23	· •		XXX z 8						-	•	
	<u>-</u>		XX				29 33	, -					,					
									1									
	×	-	XXX	_			37	-	1									

Scil Type: Fhebs silt loam

Scil No.: S63Miss-18-2
Location: NW of Gandy's Grocery, Glendale on Estonville Road 2.7 miles; 0.5 mile west in oldfield. T 5N,

Range 13W, Section 20, Forrest County, Mississippi; serial photo: CZH-1H-31.

4

Horizon and Beltsville Lab. No.

0 to 3 inches. Dark gray (10YR 4/1) silt loam; weak medium granular structure; friable; many fine 63299 roots; few small pieces of charcoal; some earthworm casts; strongly acid; clear way; boundary.

3 to 8 inches. Pale brown (10YR 6/3) losm or silt losm; weak medium platy and fine subangular blocky structure; friable; many fine worm casts from adjoining horizons (10YR 5/3 crushed); few fine roots; A2 63300 less clay than BE; very strongly acid; clear wavy boundary.

8 to 16 inches. Light yellowish brown (2.5% 6/4) silt loam with common fine faint mottles of yellowish brown (10% 5/8) and few fine faint light brownish gray (10% 6/2); weak medium subangular blocky structure; friable; many small voids; few worm channels; common fine and medium iron and manganese concretions; B2 63301 few fine roots; slightly more clay than A2; very strongly acid; clear wavy boundary.

16 to 21 inches. Pale brown (10YR 6/3) silt loam with few fine faint mottles of gray to light gray (10YR 6/1); weak thin platy structure; friable; brittle; porous; few fine and medium iron and manganese concretions; many voids; the horison is discontinuous; very strongly acid; abrupt irregular boundary. A'2gx 63302

Yellowish brown (10YR 5/8) loam to silt with common medium faint mottles of light B'2tgx yellowish brown (2.5Y 6/4); some moderate coarse angular structure; massive in places; firm; few clay 63303 films; horizon contains gray horizontal bands 1/2 to 1 inch thick; clay content increases in bands; few small iron and manganese concretions; root stains are brown (7.5YR 4/4); very strongly acid; clear wavy

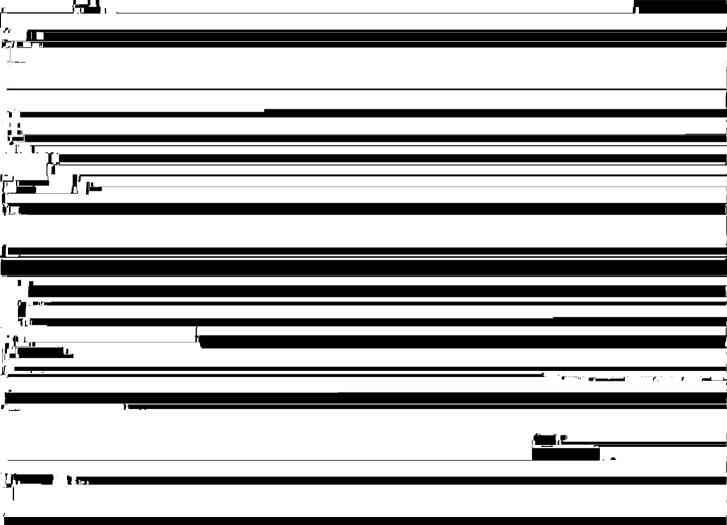
33 to 46 inches. Olive yellow (2.5% 6/6) heavy losm with many coarse distinct mottles of gray to light gray (10% 6/1), strong brown (7.5% 5/8) and few medium distinct red (2.5% 4/8); massive; firm; high Clgx 63304 bulk density; occasional pressure face; vertical gray tonguing of sandy clay loam material 1 to 1 1/2 inches wide; pockets of gray material probably eluviated from above horizons; edges of pockets contain higher content of clay than center; very strongly acid; gradual wavy boundary.

46 to 60 inches. This horizon consists of coarse polygonal structure with pockets of gray material separating them; interior of polygons are coarse mottled yellowish brown (107R 5/8), and strong brown (7.57R 5/8) with mottles of gray (107R 6/1); silt loam; firm; the clay pockets are gray to light C2x 63305

903-421 10-64

SOIL SURVEY LABORATORY Beltsville, Maryland LAB. Nos. 63306-63312

	1		Blb					Size cles	s and porti	cie diamete	(MM)	3A1					
			Total					Sand		Sift	1				Cos	rso fragmoj	rts _
Dapth	Horizon	Sand	siit	Clay	Very	Coerse	Medium	Fine	Very fina		Int. III	Int. II (0.2–0.02)	(2-0.1)		2A2	2 - 19	19-76
(in.)		(2-0.05)	(0.05 0.002)	(= 0.002)	(2-1)		(0.5-0.25) L. of -< 2 :		(0.1⊶0.06)	Q.05-0.U2	9.002)	(0.2-0.02)	(Z-U.1)		Pct.	PC	enm
0-4	Al		69.3	79.2	0.3	1.1	2.1	7.0	11.0	1	43.0	41.8			tr.		
4-9	A2		66.0	12.8	1.3	1.4	1.7	5.6	11.2		41.0	39.9			tr.		
9-18	B2			19.4	0.3	0.8	1.5	5.2	10.7		38.2	38.0			tr.		
18-24	A '2gx	ľ -	57.3	18.1	2.9	2.7	2.2	5.8	11.0		35.6	36.3			tr.		
24-39	B'2tgx		49.2	26.5	0.9	2.3	2.4	6.2	12.5		29.0	36.7			tr.		
39-49	B'3tgx	L		26.9	0.5	1.5	2.2	6.8	14.8	<u> </u>	27.3	30.4			t.r.		
49-65+	Cx		45.5	28.5	0.7	1.6	2.1	6.4	15.2		25.9	39.2			tr.		
	 	<u> </u>			<u> </u>	_##\\						, . 					— ۷۰۰
	6A1a	682a		* '		6Cla	1"	Bulk densi	y	+	,	Nater conta	nt .	- / W/ 		J., PH	
Depth (is.)	Organic	Nitrogen	C/N		Carbonata as CaCO _a	Ext. Iron		4Ale 1/3	4Alb Oven-			4Blc 1/3	4B2 15			801c	8C1s
1111.7						a.s Fe		Bar	dry			Bar	Bar			KC1	H ₂ O
	Pct.	Pct.			Pct.	Pct.	g/ox	g/cc	g/ec	l .	Pet.	Pet,	Pet.	1	l	ŀ	



Soil Type: Pheba silt loam Soil No.: S63Miss-18-3

Location: 0.8 miles east of Junction of Highway 11 and 42, Petal, Miss.; 8.4 miles NE on Old Richton Road to Po Boy Feed Store; NW 0.2 miles on blacktop road, SW 250 feet in pasture. Section 21, T 5N, R 12 W. Forrest County, Mississimi, aerial photo: CZM-ZW-16.

Mississippi, aerial photo: CZE-7H-16.
Vegetation and Land Use: Carpetgrass, bluestem, and longlesf pine seedlings.

Slope and Land Form: 0 to 2 percent

Horizon and Beltsville

Al 0 to 4 inches. Dark gray (lOYR 4/1) silt losm; weak medium granular structure; friable; many worm casts from the A2 horizon; few fine pieces of charcoal; common fine roots; very strongly acid; clear wavy boundary.

4 to 9 inches. Light brownish gray (2.5% 6/2) silt losm with common fine distinct mottles of yellowish brown (10% 5/6), and few fine faint mottles of gray to light gray (10% 6/1); weak medium subangular to weak fine granular structure; friable; few gray (10% 5/1) worm casts from the Al horizon; few fine brown concretions; very strongly acid; clear wavy boundary.

B2 9 to 18 inches. Light yellowish brown (2.5% 6/4) silt loam with common fine faint mottles of yellowish brown (10% 5/8), pale brown (10% 6/3) and few fine faint light brownish gray (10% 6/2); weak medium subangular blocky structure; friable; few fine voids; few fine brown concretions; few fine roots; very strongly soid; clear wavy boundary.

A'2gx 18 to 24 inches. Light gray (2.5% 7/2) silt loam with many fine and medium distincts mottles of yellowish 57309 brown (10%R 5/6), strong brown (7.5%R 5/8), pale brown (10%R 6/3), and light gray (10%R 6/1); massive; firm; horizon well defined but discontinuous; brittle; common fine voids; very strongly acid; abrupt irregular boundary.

B'2tgx 63310

24 to 39 inches. Yellowish brown (10YR 5/8) loam with common medium and coarse distinct mottles of brown to dark brown (7.5YR 4/4) and few fine prominent mottles of red (2.5YR 5/8); moderate coarse angular blocky structure, very firm, brittle; 40 percent of horizon contains horizontal gray (N 6/) streaks, 1/2 to 2 inches in width, these streaks are heavier in texture than horizon as a whole; few coarse (20mm) soft brown concretions, common manganese stains on yellowish brown ped faces, and in center of peds; few voids; few well defined ped faces; very strongly acid; gradual wavy boundary.

39 to 49 inches. Yellowish brown (10YR 5/6) loam with common medium and coarse distinct and prominent mottles of strong brown (7.5YR 5/8) and red (2.5YR 4/8); massive with a tendency to break into coarse angular blocky structure; very firm; 20 percent of horizon contains vertical gray (N 6/) streaks, 1/2 inch to 1 1/2 inches in width. These streaks are clay loam in texture; few medium (5 to 15 mm) manganese concretions; few fine voids; very strongly acid; gradual wavy boundary.

Cx 49 to 65 inches. Yellowish brown (10YR 5/8) heavy loam with common medium distinct mottles of strong brown (7.5YR 5/8), and yellowish red (5YR 5/8); massive; firm, not as firm as Bjtx; 15 percent of horizon contains vertical gray (N 6/) streaks, 1/2 to 1 inch in width, these streaks are clay loam in texture; evidence of clay movement in gray (N 6/) streaks; very strongly acid.

Notes: This is located on a high Fleistosens terrace (Upland) some 35 to 40 feet above the Leaf River. The area never overflows.

SOIL SURVEY LABORATORY Lincoln, Nebr. August 1962

SOIL TYPE Prentiss LOCATION Clarke County, Mississippi fine sandy loam

SOIL NOS.

S61M1ss-12-1 LAB. NOS. 15128-15135

	<u>.</u> 652-1864 ot 6176 (84	181	10° 110 (100) 11111 11111 11111 	menumun ITRAG	CLE-SiZ	E CISTRIB	UTION (in	mrn.) (pe	······································	3 A 1	90504886918894441	##117#2 014####*** ****
DEPTH INCHES	HORIZON	VERY COARSE SAND	CCARSE SAND	MEDIUM SAND	FINE	VERY FINE SAND	SILT	CLAY			2A2 > 2	TEXTURAL CLASS
		2-1	1-0.5	0.5-0.25	0.75-0.10	£,10-0.05	0.05-0.002	< 0.002	0,2-0.02	002-0002		
0-5	Ap	0.2a	2.1a	5.4	39.6	14.1	35.9	2.7		16.5	-	fal.
5-9	A2		1.3	3.9	31.0	11.2	45.6	6.9			-	fsl
9-20	B2H		1.2	3.7	28.8	10.6	36.6	19.0			-	1
20-26	1		1.6	5.1	38.7		29.6	11.6		16.7		fsl
26-36	B23tx		1.7	5-4	41.6		25.9	10.9		–	-	fel
36-46	5		1.7	6.3	42.6		22.3	13.7			-	fsl
46-54	See	l	2.6	8.7	44.1	10.3	14.4	19.8			-	fsl/scl
54 - 70	Desc.	∞.1	0.9	3.1	32.8	13.6	22.8	26.8	44.6	14.5	-	scl
	<u> </u>							į			ļ	
וֹמַ	Ξ	Organ	nic Mai	tter	1	Bulk	Density	/		MOIST	URE TE	NSIONS
8Cla	8Cle	6Ala	6Bla		Field	Moist	30	cm.	A.D.	4Blb	4C1	4B2
H ₂ O	KCI	O.C.	N	C/N	4B4	4Ale	483	4Alc	HAIL		1/3-to	15
1:1	1.7	%	95		% M.	g/cc	% M.	g/cc	g/cc	ATMOS. Pieces		
6.0	.나: 5.0		0.054	15	18.3	1.56	17.9	1.56	1.56	10.0	in./ir	1.5
6.1		0.17	0.016		ر	4-70	-1-7		,0	-0.0		2.5
4.6	3.6		0.019		14.1	1.64	18.9	1.60	1.66	15.3	.13	7.0
4.6	3.4	0.05	0.011					•			•	4.5
4.7		0.03			10.2	1.85	13.3	1.82	1.85	10.8	.12	3.9

Soil Type: Prentiss fine sandy loam

Soil Nos.: 861161ss-12-1

location: Clarke County, Mississippi, about 1 mile south of Enterprise. 300 feet south of northwest corner of Sec.

25, Two, RIAE.

Vegetation and Use: Carpetgrass and broomsedge pasture. Slope and Land Form: Nearly level (1 percent slope).

Drainage and Permeability: Moderately well drained with medium rumoff and internal drainage. Fermeability is mod-

erate in the upper part of solum and slow in the lower part.

Parent Material: Coastal Flain terrace.

Collected by: J. S. Allen and Dean C. McMurtry, Jr., May 15, 1961. Described by: H. L. Neal and R. C. Carter, May 15, 1961.

Horizon and Lincoln Lab. No.

0 to 5 inches. Dark grayish brown (10YR 4/2) fine sandy losm; weak fine and medium granular and subangular 15128 blocky structure; very friable; common fine roots; worm and root channels filled with material from A2; clear smooth boundary.

5 to 9 inches. Light yellowish brown (2.5Y 6/4) fine sandy loam; weak fine and medium granular and medium subangular blocky structure; friable; few fine roots; some mixing of Ap in worm and root channels; few fine 15129 soft brown and black concretions; clear smooth boundary.

9 to 20 inches. Yellowish brown (10YR 5/6) heavy loam; moderate fine and medium subangular blocky structure; friable; few fine roots; few fine soft brown concretions; clear smooth boundary. **B**21t 15130

20 to 26 inches. Yellowish brown (10YR 5/6) fine sandy loss with common fine distinct mottles of light yellowish brown (10YR 6/4) and light gray (10YR 7/2); weak medium platy structure breaking into fine and medium subangular blocky structure; friable; few fine roots; few fine soft brown concretions; clear smooth R22t 15131 boundary.

B23tx Mottled light yellowish brown (10YR 6/4), yellowish brown (10YR 5/6) and light brownish gray (10YR 6/2) fine sandy losm; mottles are many fine distinct; moderate medium platy structure breaking into moderate medium subangular blooky structure; friable; few fine roots; many fine voids; few vertical cracks of pale yallow (2.5Y 7/4) sandy losm; gradual smooth boundary. 15132

36 to 46 inches. Mottled yellowish brown (10YR 5/6) light brownish gray (10YR 6/2) and yellowish red (5YR 4/8) sandy loam; mottles are many fine and medium, distinct and prominent; moderate medium platy structure PO4tx 15133 breaking into moderate medium and coarse subangular and angular blocky structure; friable; few fine roots; few common fine voids; vertical cracks 1 to 2 inches wide of pale yellow (2.5Y 7/4) loamy sand; patchy clay films; gradual smooth boundary.

46 to 54 inches. Mottled yellowish red (5YR 4/8) light brownish gray (10YR 6/2) and yellowish brown (10YR 5/6) sandy clay loam; mottles are many fine and medium, distinct and prominent; moderate coarse subangular and angular blocky structure; friable to firm; few fine roots; few fine voids; clay films on ped faces IIE25tx 15134 and in cracks; clear smooth boundary.

54 to 70 inches. Gray (10YR 6/1) heavy sandy clay loam with common to many fine and medium, distinct and prominent yellowish red (5YR 4/8) yellowish brown (10YR 5/6) and red (10R 4/6) mottles; moderate medium and coarse angular blocky structure; friable to firm slightly plastic; clay films on ped faces and in IIB26tx 15135

Remarks: The E21t, E23tx and IIE26tx horizons were sampled for the Bureau of Rublic Roads. Colors given are for moist soil.

Mineralogy (Method 7B): The mineralogy of the very fine sand is uniform throughout. Quartz and feldspar dominate. Thin, patchy clay films observed in the 223tx horizon under a stereoscopic microscope.

SOIL	SURVEY	LABORATOR	Y Lincoln,	Nebr. Jul	y 1959
SOIL		rovidence	LOCATION	Lincoln County, M	dasissippi

SOIL NOS. S59Miss-43-1 LAB. NOS. 9884-9891

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 	 	1B1		PART	CL E-512	E DISTRIB	UTION (ir	mm.) (pe	n ceut)	"	1449441 - 1444 4 44444	64 a <u>164 1650 191</u> 4694
	1				I	[2A2	
DEPTH	HORIZON	COARSE	COARSE	MEDIUM	FINE	VERY						TEXTUR CLASS
		SAND	SAND	SAND	SAND	SAND	SILT	CLAY			> 2	
	•	2-1	1-0.5	0.5-0.25	0.25-0.10	0.10-0.05	0.05-0.002	< 0.002	0.2-0.02	0.02-0.902		
0-2	Al	0.2	2.0	8.2	14.6	2.0	67 5	e e	20. 2	25 6		-41
2-8	A2	0.2					67.5	5.5	39.3	35.6	-	Bil
8-10	RI		2.0	8.5	13.8	1.6	67.0	6.9	38.0	35.4	-	sil
	i	0.1		5.0	8.2	1.0		17.2	32.8	38.4	-	sil
0-19	E21t IIB22t	<0.1	0.9	4.0	6.6	0.8		28.1	26.6	36.5	-	sicl
9-28	See		. – .	7.4	12.9	1.6		20.0	28.1	34.6	-	sil
მ -3 7	Desc.	0.3		14.4	26.0	3.1		16.4	28.5	21.0	-	1
	<u> </u>	0.1	3.6	17.3	: =	3.9		17.2		14.3	-	fsl
5-62	IIB25t	k 0.2	3.2	17.0	35.1	4.1	20.2	20.2	25.7	11.8	-	scl/f
	,		į į		†	•]
1441 (292-49 14016)	mmmmm Hq	personanuma.	GRG	NIC MĄ	immumm TTEX	Free	TRT*	IK DEN	ATTIV		URE TE	
201-			6Ala			Iron	. дс	145	3.1.1		<u> </u>	4B2
3Cla			ONLIN	VITOO			Field	30-cm	0. D.	Field	30 - cm	15
	1:5	1:10	ORGANIC CARBON	GEN	C/N	Teco-d	State	20-cm		State	J .	Atmo
1:1			%	*	•	Fe ₂ 0 ₃ %	g/cc	#/cc	9/00	4	ø,	A GIIC
4.8	i				1.	0.6	i e g tili	49/11/43-	-E/-J363-			<u> </u>
4.8	1			0.113				,			,	5.4
					23	0.8						2.9
5.0				0.029	9	1.8						7.1
5.1				0.031	į	3.1						12.1
5.3			0.08	0.017		2.3		į				8.9
5.5			0.05		1	1.6		ļ		1		6.9
5.8]		0.03			1.6		İ]		7.1
5.7]		0.03		<u> </u>	2.1		ĺ		1		8.5
					İ					1		f
5 Ala	***************	EXTRAC	TABLE	CATIONS	581a	SASE	Вазе	Sum	Sun	Ce/Ng	141446161441441441	• • • • • • • • • • • • • • • • • • •
			,	6P2a	602a	SAT.	Sat. %	Ext.	Ext.	447.4E		
SATION CHANGE PACITY				i		NH _L Ac	_ •	Bascs	Cot-			
H)LÃC	Co	Mg	Н	No	K	EXCH.	Cations		ions			
	 	viupeilim	alents per	100g. sal	·	5CL	5C3	5Bla	5A3a	L		
u.6	2.3	0.8	14.2	<0.1	0.2	28	19	3.3	17.5	1		
	0.4	0.4	6.0	₹0.1	0.1	24	13	0.9	6.9	1 1		İ
3.7 6.2	0.4	0.8	6.9	<0.1	0.1	21	16	1.3	8.2] .		ŧ
10.8	0.4	3.8	11.0	0.1	0.1	40	28	4.3	15.3]		ł
8.2		2.9		ŧ –	0.2	40	32	3.3	10.2			I
	0.1		6.9	0.1			40	2.7	6.7			1
6.0	<0.1	2.4	4.0	0.2	0.1	45 60	144	3.4				1
5.7 6.4	<0.1 <0.1	3.1	4.4 4.8	0.2	LO:1	55	42	3.5	7.8 8.3	1		ł.
0.4	₩.1	5.2	4.0	0.3	m.+	77	46	3.7	0.3			j
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Soil Type: Providence silt loam Soil Nos.: 859Miss-43-1

Location: Lincoln County, Mississippi, southeast of Brookhaven. 145 feet west of southeast corner of SW 1/4, ME 1/4, Sec. 36, T/N, K/E: Photo CJL-2K-NO.

Brainage and Fermeability: Moderately well drained. Fermeability is moderate in the horizons above the fragipan and slow in that layer.

Farent Material: Thin loss overlying friable Coastal Flain material. Collected by: J. S. Allen, January 26, 1959.
Described by: R. C. Carter, January 26, 1959.

Horison and Idneoln Lab. No.

· Committee

V.

to 0 inch. Hardwood leaves, pine needles and native grass litter. Œ

0 to 2 inches. Black (10YR 2/1) to very dark gray (10YR 3/1) silt loss with weak fine to coarse granular 9884 structure; very frieble; numerous fine grass roots; boundary abrupt and smooth.

2 to 8 inches. Light clive brown (2.57 5/4) silt loam with weak fine to medium subangular blocky struc-9885 ture; very friable, slightly sticky; muserous fine grass roots; boundary abrupt and smooth.

8 to 10 inches. Strong brown (7.5TR 5/6) silt loam with weak fine to medium subangular blocky structure; 9886 friable, slightly sticky; many fine roots; boundary clear and smooth.

B21t 10 to 19 inches. Yellowish red (5YR 5/6) heavy silt losm with moderate fine and medium subangular blocky 9887 structure; friable, slightly sticky; few fine roots; boundary abrupt and smooth.

IIB22t 19 to 28 inches. Strong brown (7.5YR 5/6) silt loam with many medium distinct mottles of pale brown 9888 (10YR 6/3); weak thick platy structure breaking down into moderate coarse subangular blocky; few thin clay skins on peds; firm, slightly sticky; few fine roots; some fine pores; common manganese coatings on ped faces; boundary gradual and wavy. This horizon wet and moisture seeped out along face of pit.

11323tx 28 to 37 inches. Nottled strong brown (7.5YR 5/6) pale brown (10YR 6/3) and light gray (10YR 7/2) loam with weak to moderate medium angular blocky structure; firm; few roots; many pores; vertical cracks of light gray (10YR 7/1) high in clay; boundary gradual and wavy. & A'2x 9889

37 to 45 inches. Strong brown (7.5YR 5/6) clay loam with common fine distinct mottles of yellowish red (5YR 5/6) and light gray (10YR 7/1); weak to moderate medium angular blocky structure; firm; very few roots; few porce; vertical cracks of light gray (10YR 7/1) which is high in clay content; boundary gradual and wavy. TIROLEX 9890

45 to 62 inches. Wariegated red (10R 4/6 to 4/8) and reddish yellow (7.5YR 6/6) clay loam; structureless, 11325tx breaking into coarse angular blocks; firm; very few roots; light gray (10YR 7/1) coatings on faces; 9891 vertical crack of light gray (10YR 7/1) clay loam.

Remarks: Colors are of moist soil.

SOIL	SURVEY	LABORATORY	Lincoln,	Nebr.	anly1	1959
SOIL	TYPE	Providence LOC silt loam	ATION.	Lincoln	County, Missi	issippi
						* = * + ,
	SOIL NOS.	S59Miss-43-2	LAB.	NOS.	9892- 9900	F 1 F

MINION TO THE TOTAL PROPERTY OF THE TOTAL PR	*************	1.B	La.	PARTI	CL E-SIZ	E DISTRIB	UTION (in	mm.) (pe	rent)	<u></u>		**************************************
DEPTH INCHES	HORIZON	VERY COARSE SAND	COARSE	MEDIUM	FINE	VERY FINE SAND	SILT	CLAY			2A2 > 2	TEXTURAL CLASS
		2-1	\$AND 1-0.5	\$AND 0.5-0.25	5AND 0.25-0.10		0.05-0.002	< 0.002	0.240.02	0.02-0.002	7.	
0-3	Al.	0.4	2.7	7.1	6.5	1.1	73.0	9.2	34.7	41.6		sil
3-7	A2	0.1	2.0	6.1	5.6	0.9	74.2	11.1	34.1	42.7	-	sil
7-9	EL.	0.2	1.5	4.7	4.2	0.6	74.3	14.5	31.0	45.2	-	sil
9-14	B21t	0.1	1.2	3.8	3.3	0.5	70.2	20.9	28.8		-	sil
14-23	B22t	<0.1	1.0	3.3	5.8	0.5	62.8	29.6	24.0	40.1	-	sicl
23-30 30-38	B23t	0.1 <0.1	1.3 3.9	4.3 13.7	3.7 9.7	0.6 1.1	65.3 56.1	24.7 15.5	25.7 25.8	41.3 33.9	-	sil sil
38 <u>-53</u> i	See Desc.	0.1			16.3	1.6	34.5	14.6	19.1	21.0		1
53-50 1	IB26t:	0.1	7.8	25.6 28.8	18.7	1.8	26.8	16.0	16.5	16.7	-	sl
40-55	(<u>+/</u>	<0.1	6.3	21.4	13.5		43.0	14.5	22.3	25.3		
8Cla	PH			NIC MA	TTER	Free Iron	BULL		4Alb	HBH HBH		NSIONS
COLE			ORGANIC			11.0.1	4Ala Field	4Alc 30-cm	0. D.	Field	4133 30-cm	4B2 15
	1:5	1:10	CARBON	GEN	C/N	Fe ₂ 0 ₃ %	State	JU-441	J. J.	State		ATMOS.
1:1			*	. %		5CIA_	g/cc	g/cc	g/oc	9,	\$ 36	%
5.3				0.135	29	0.8	0.93	0.92			36	6.7
5.0				0.044	19	0.9	1.47	1.47	1.48	20	23	4.2
5.1 5.1				0.032	12	1.3 2.0						5.4 8.1
5.2				0.031		3.3	1.48	1.47	1.57	22	24	12.3
5.3			7	0.027		2.8						10.6
5.5			0.06			2.0						6.6
5.4			0.02		[1.3 1.3	1.90	1.84	1.90	9	15a	5.5 5.7
5.4 			0.03		1	1.6						6.0
5Ala	z 0103 41088751177	EXTRAC	TABLE	CATIONS	5Bla	BASE	Base	Sun	Sun	Ca/Mg	1	P.1221-1-1-1-1
			6Hla	6 P2a	602a	SAT.	Sat. %	Ext.	Ext.	* -		
CATION CHANGE CAPACITY	Ca	Mg	н	No	K	NH), AC EXCH.	on Sum	Bases	Cat-			
NH; Ac	,	ei lijegyiv	alents per	: 100g. soli	 	5C1,	Cations 5C3	5RIA	ions 5A3a	.833_	ļ.	
14.2	4.4	1.5	16.3	<0.1	0.4	44	28	6.3	22.6	2.9		·
6.0	0.4	0.4		<0.1	0.1	15	11	0.9	8.2			İ
6.3	0.5	1.3	6.0	<0.1	0.1	30	24	1.9	7.9			1
7.7	0.9	2.4	6.5	0.1	0.2	47	36 33	3.6		1		
11.4	0.9	3.4	9.3		0.2	40 44	33	4.6 4.6	13.9 12.3			1
10.4 6.7	0.9	3.4 3.2	7.7 4.8		0.1	61	37 46	4.1	8.9			ł
5.1	0.5	1.6		0.1	0.1	45	42	2.3			Ī	1
5.0	0.4	2.2	3.2		0.1	56	47	2.8	6.0	ţ		ŧ
5.9	0.4	2.6	3.2	0.1	0.1	54	50	3.2	6.4			<u> </u>
			filling	.		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1	**************************************		***************************************
a. Av	erage	OT 2 C	Togs.	,		1	<u>-</u>		<u> </u>) :		

Soil Type: Providence silt loam

Soil Nos.: 859Nt.ss-43-2

location: Lincoln County, Mississippi, approximately 10 miles northeast of Brookhaven. 145 feet west and 72 feet north of southeast corner of SW 1/4 SE 1/4, Sec. 10, TTN, ROE. Rhoto CJL-SK-S6.

Vegetation and Use: Mixed pine and hardwoods and native grass. This area has probably never been cleared.

Slope and Land Form: Gently sloping (3 percent) on broad ridge in area of gently to moderately sloping topography. Brainage and Permeability: Moderately well drained. Fermeability is moderate in the horizons above the fragipan and slow in that layer.

Parent Material: Thin loss overlying friable Coastal Plain material. Collected by: J. S. Allen, January 26, 1959.
Described by: R. C. Carter, January 26, 1959.

Rorizon and <u>Lincoln</u> Lab. No.

 α to O inches. Hardwood leaves, pine needles and native grass litter.

A1. 9892 O to 3 inches. Black (LOTR 2/1) silt loss with weak fine to coarse granular structure; very friable; numerous fine gress roots; boundary clear and smooth.

3 to 7 inches. Grayish brown (10YR 5/2) silt loam with weak fine subangular blocky structure; very friable; numerous fine grass roots; boundary clear and smooth. 9893

7 to 9 inches. Strong brown (7.5YR 5/6) silt loam with weak fine subangular blocky structure; friable, slightly sticky; few root channels filled with light gray (10YR 7/2) silt loam; numerous fine roots; B) 9894 boundary clear and wavy.

9 to 14 inches. Strong brown (7.5TR 5/6) heavy silt losm with weak fine to medium subangular blocky structure; friable, slightly sticky; numerous fine roots; boundary clear and smooth. B21t 9895

14 to 23 inches. Yellowish red (5YR 4/6) heavy silt loam with moderate fine and medium subangular blocky structure; friable, slightly sticky; many fine roots; common manganese coatings on ped faces in lower part of horizon; boundary clear and irregular. B22t 9896

23 to 30 inches. Dark brown (7.5YR 4 /4) to strong brown (7.5YR 5 /6) wilt loam with common medium distinct mottles of light yellowish brown (10YR 6 /4); moderate medium angular blocky and subangular blocky structure with few thin clay skins on peds; friable, slightly sticky; few roots; common manganese B23t concretions; many fine pores; boundary clear and wavy. This horizon wet and free moisture seeped out along face of pit.

IIB24tx 30 to 38 inches. Mottled yellow (10YR 7/6) light brownish gray (2.5Y 6/2) and yellowish red (5YR 4/6)

SOIL Rains very fine sandy losm SOIL Nos. S63Miss-18-1 LOCATION Forrest County, Mississippi

SOIL SURVEY LABORATORY Beltsville, Maryland LAB. Nos. 63313-63319

·		1В1ь						Size clas	s and perti	de diamete	r (AAM)	341				
			Total		I			Send		SH	1		_	Coa	rse fragme	mts
Depth (in.)	Herizon	Sand (2-0.05)	\$#t (0.05 0.002)	Clay (< 0.002)	Very coerse (2-1)	Coarse (1-0.5)	Medium (0.5–0.25)	Fine (9.25–0.1)	Very fine (0 1–0.05)	0.05-0.02	int. III (0 02 0.002)	Int, II (0.2~0.02)	(2-0.1)	2A2 >= 2 Pct.	2 - 19	19 - 76 et. of
0-3 3-7 7-13 13-21 21-28	Al A21g A22g Blg B2g		46.0 45.1 45.5 54.4 46.5	4.4 5.0	0.0 0.0 0.0 tr.	0.6 0.2 0.3 0.3	1.6	21.1 22.2 21.6 19.3 20.2	26.2 19.7		18.8 19.4 20.2 21.7 21.3	67.4 67.4 65.9 64.8 60.6	<u> </u>	 tr. tr. tr.		
28-46 46-60+	B3g Cg	-	39.3 36.4	14.9	0.0	0.3	3.0	20.8	21.7		17.8 17.3	56.0 54.7		tr.		
-								Bufk densit				Vater conta			oH	
Depth (In.)	6A1m Organic carbon Pct.	6B28. Nitrogen Pct.	C/N		Cerbonate as CeCG _g	6Cla Ext. Iron as Fe	g/cc	AAle 1/3 Ber	4Alh Oven- dry		Pet.	laBlc 1/3 Bar	14B2 15 Bear Pet.		8C1c 1:1 1N KC1	BCla (1:1) H ₂ O
0-3 3-7 7-13	1.97 1.13 0.26	0.120	16 21		,	0.2 0.3 0.2		1.27 1.40 1.52	1.28 1.41 1.53			23.5 20.2 15.4	6.5 3.5 2.4			3.9 4.1 4.2
13-21 21-28 28-46	0.29 0.14 0.05					0.2 0.4 0.4		1.66 1.70 1.66	1.67 1.73 1.71			13.8 16.8 16.6	2.3 3.9 6.6		,	4.1 4.0 4.2

Soil Type: Rains very fine sandy loam

No.: S63M1ss-18-1

Location: 5.2 miles south of Carnes School on paved road; 0.5 mile east of road in reforested area; NE 1/4, Section 27, Township 15, Forrest County, Mississippi, serial photo: CZH-TH-72. Vegetation and Land Use: Slash pine, wax myrtle, gallberry, and pitcher plants.

Slope and Land Form: O to 2 percent

Horizon and Beltsville Lab. No.

O to 3 inches. Very dark gray (10YR 3/1) very fine sandy loam; weak medium granular structure; friable; many fine roots and brown (7.5YR 4/4) root stains; earthworm casts from A2; very strongly A1 63313 acid; clear wavy boundary.

3 to 7 inches. Dark gray (10YR 4/1) with bleached sand grains of light brownish gray (10YR 6/2); very fine sandy loam; weak medium granular structure; friable; brown to dark brown (7.5YR 4/4) root A21g 63314 stains; many fine roots; worm casts from adjoining horizons; strongly acid; clear wavy boundary.

7 to 13 inches. Mottled dark gray (10YR 4/1), light brownish gray (10YR 6/2) and common fine distinct mottles of light yellowish brown (2.5Y 6/4) very fine sandy loam; weak fine subangular blocky structure; friable; fine root stains are dark brown to brown (7.5YR 4/4); some worm casts from adjoining horizons; A22g 63315 organic intrusion from Al; strongly acid; clear wavy boundary.

13 to 21 inches. Grayish brown (2.5Y 5/2) very fine sandy loam with many fine distinct mottles of Blg 63316 yellowish brown (10YR 5/6); weak medium subangular blocky structure; friable; fine root stains are brown to dark brown (7.5YR 4/4); some small wormholes; few small pieces of charcoal; organic intrusions; strongly acid; clear wavy boundary.

21 to 28 inches. Light brownish gray (10YR 6/2) leam or silt leam with many fine medium distinct mottles of yellowish brown (10YR 5/8) and light yellowish brown (2.5Y 6/4); weak medium subangular B2g 63317 blocky structure; friable; few wormholes; few fine roots; intrusions of organic materials and manganese down ped faces and channels; balls of sandy clay loam present in channels; strongly acid; clear wavy boundary.

28 to 46 inches. Mottled yellowish brown (10YR 5/8), brownish yellow (10YR 6/6), and gray to light B3g 62218

SOIL Nos. S63Miss-37-1 LOCATION Lawer County, Mississippi

SOIL SURVEY LABORATORY Beltsville, Maryland LAB. Nos. 63320-63326

		1B.							s and parti			3A1		r				
			Total		ļ			Sand		Si	nt .			l			irse fragme	nts
Depth	Horizon	Sand	Silt	Clay	Very coarse	Coarse	Medium	Fine	Very fine		int, III	Int. 🏻				2A2 >- 2	2 - 19	19-7
(In.)		1, ,	0 05- 0 002)	(< 0.002)	(2-1)		(0.5–0.25) of =< 2 :		(0.1-0.05)	0.05-0 02	(0.02-	(0.2-0.02)	(2-0 1)			Pct.	Pt	1 1. c1 76mm
0-5	Al	-	49.3	7.9	0.2	1.2	4.5	19.6	17.3		26.5	51.4				tr.	1	T
5-9 9-16	A2g Blg		45.6 41.0	7.6 8.3	0.2	1.3	5.8 9.3	20.8	18.7 16.7		23.7	51.9 47.4				tr.		
6-29	B21g	† <i>-</i>	38.8	12.7	0.3	2.3	10.4	82.0	13.5		20.6	41.2				tr.		
29-42	B22g		38.9 38.0	22.3	0.3	1.9	8.1	16.4	12.1		22.0	36.7				tr.		
+2 -50 50 -66	B3g C1g	 	38.8	23.3	0.4	1.9	7.8	16.7 16.2	11.9 12.6		22.3	35.2 36.2				tr.		
_	ļ <u> </u>						İ	_							,	-	<u> </u>	_
	6Ala	6B2a	ľ	<u> </u>		601a	<u> </u>	Bulk densit	,		 v	Veter conte	nt				pH	
Depth	Organic	Nitrogen	C/N		Carbonate	Ext.		4Ale	4A1h			481c	482	1			801c	801a
(ln.)	carbon		-,		as CaCO _S	Iron as Fe		1/3 Bar	Oven- dry			1/3 Bar	15 Bar				1:1 LN KC1	H ₂ 0
	Pct.	Pct.			Pet.	Pct.	fice	8\cc	8/cc		Pct.	Pet.	Pet.					
0-5	1.72	0.094			_	0.2		1.39	1.41 1.52			22.2 16.6	5.9 3.8					4.2
5 -9 9-16	0.52	0.030	17			0.2		1.50	1.65			14.8	3.7					4.5
16-29	0.12					0.6		1.66	1.72			18.1	3.8					4.6
29-42 42-50	0.06 0.08					1.2		1.62	1.76			21.7	5.5			<u> </u>		4.6
50 <i>-</i> 66	-					1.2		1.60	1.72			20.3	9.6				_	4.6
cio.	<u> </u>			ĖDŽ.		Tonza	C19				us-barris .					1	Base sat	huration
	6N2a	Extractat 602b	6P2a	5Bla 6Q2a	1		5A3a	ř	6G1a								5C3	
Depth (in)	Ca	₩g	Na	ĸ	Sum	Ext. Acid- ity	Sum Cat-		Ext.								Sum Cat- ions	
	-	<u>'</u>	· 		meq/100 g	i		·									Pct.	Pct.
0-5 5-9 9-16	0.6 0.2 0.2	0.5 0.3 0.3	0.l tr. tr.	tr. tr. tr.		7.7 4.5	8.9 5.0		2.3 2.3 2.7								13 10	
16-29	0.3	0.6	tr.	0.1		5.3	6.3		4.0								16	
29-42	0.9	1.5	0.1	0.1		8.ŏ	10.6		5.4 5.5								25 29	
<u>42-50</u> 50-66	1.8	1.8 2.4	0.1	0.2	_	7.5	12.0		4.6		1					_	38	
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Depth (in)																		
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Soil Type: Rains loam 8011 No.: 863M188-37-1

Location: 4 miles W. of Highway 11, Lumberton, on paved road; 2.8 miles south and west on gravel rd.; north 200 feet, Township 1 N, Range 15 West, Section 19, Lamar County, Mississippi, aerial photo CLQ-7V-200.

Vegetation and Land Use: Slash pine, black gum, pitcher plants.

Slope and Land Form: O to 2 percent.

Horizon and Beltsville Lab. No.

63320

0 to 5 inches. Very dark gray (10YR 3/1) losm; weak medium and coarse granular structure; friable; light gray $(2.5Y\ 7/2)$ mottles or earthworm casts; few fine brown to dark brown $(7.5YR\ 4/4)$ root stains;

clear wavy boundary.

A2g 63321

5 to 9 inches. Light gray to gray (10YR 6/1) very fine sandy losm with common fine distinct mottles of yellowish brown (10YR 5/8); weak medium and coarse granular structure; friable; few fine roots; occasional earthworm casts from Al; few fine strong brown (7.5YR 5/6) root stains; clear wavy boundary.

Blg 63322

9 to 16 inches. Light gray to gray (10YR 6/1) very fine sandy losm mottled with yellowish brown (10YR 5/8); few ped faces are grayish brown (2.5Y 5/2); very weak medium subangular block structure; friable; few fine strong brown (7.5YR 5/8) root stains; few fine roots; clear wavy boundary,

SOIL Ruston losm

SOIL Nos. <u>855Miss-30-3</u> LOCATION Jackson County, Mississippi

SOIL SURVEY LABORATORY Beitsville, Maryland

LAB. Nos. <u>5612 - 5616</u>

USDA-1CS-MYATTSWILLE MB. 1944

		I 1814						Gips al-	a and name	de diames	- (40,44) \$5							
		1816	Total		I			Sand	s and parti	Si Garmen				Ī	382	Com	rie fragma	nts 384
Depth (In.)	Norizon	Send (2-0.05)	SIN (0.06- 0.002)	Clay (= 0.002)	Very coerse (2-1)	Coorse (1-0.5)	Medium (0.5–0.25)	Fine	Very fine (0.1–0.05)	0.05-0.02	Int. III (0.02-	int. II (0.2–0.02)	(2-0.1)		Cm	2A2 3→ 2	2-19	19-7
		_		<u> </u>	1		t. at =< 2	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			0.002)	'				Pct.		t. of '6mm
0-3	A1		20.8	7.2	0.6	9.3	18.6	31.4	12.1		11.3	36.8				tr.		
3-9 9-17	A2 B1		21.1 23.0	10.0	0.4	9.4	18.6 15.8	29.4 28.5	11.2		11.9 13.0	34.5 35.2				-	1	
17-43	182t		22.3	17.7	0.3	6.5	14.6	27.0	11,6		13.3	34.1		 	 			
43-84+	33t	<u> </u>	18.1	10.6	0.4	7.6	16.9	32.4	14.0		9.5	39.0				-		
													_ _				_	
_	6A1a							Bulk densit	y.	4D1	, w	ater conte	nt		4C1		pH	
Depth	Organic	Nitragen	C/N		Carbonate			4Ale	4A1h			481c	482		'		8Clc	8Ç1:
(in.)	Cerbon				az CaCO _B	as Fe		³g ber	Oven dry	COLE		}g ber	15 ber		WRD		(1:1)	(1:1)
	Pet.	Pat.			Pet.	Pct.	g/tc	g/oc	g/cc		Pet.	Pct.	Pct.		in/in	<u> </u>	KCI	H ₂ O
0-3 9-17	1.30 0.56 0.28	0.054 0.030 0.022	24 19															5.0 5.0 5.0
17-43	0.08	0.015																4.7
43-84+	0.04	0.005					,								<u> </u>			4.7
_																		
		Extractal	de bases (iBla		6HLa	C	EC	8 G 1d				ation to ok	<u> </u>	8p3	_	Base set	ration
Dapth	6N2d	602b	6P2a	6Q2s		Ext.		-						Ť			503	5Ç1
(in.)	Ca	Mg	Na	K	Sum	acidity	5A3a Sum		Ext. Al			CEC Sum	Ext. iron	15-ber water	Ca/Mg		Sem	MH40
		""	l				cations		"							l	cations	
	•	<u> </u>			meq/100 g		cations		<u>"</u>								cations Pct.	Pet.
0-3 3-9 9-17	0.7 0.4 0.4	0.3 0.7 0.1	tr.	0.1 tr.					- -								cations	Pet
3-9	0.4	0.3	tr.	tr.		5.5 4.1	6.6 5.2		-								cations Pct. 17 21	Pet
3-9 9-17 17-43	0.4 0.4 0.1	0.3 0.7 0.1 0.2	tr. tr.	tr. tr.		5.5 4.1 3.7 4.3	6.6 5.2 4.2		-								cations Fct. 17 21 12 6	Pet.
3-9 9-17 17-43	0.4 0.4 0.1	0.3 0.7 0.1 0.2	tr. tr.	tr. tr.		5.5 4.1 3.7 4.3	6.6 5.2 4.2		-								cations Fct. 17 21 12 6	Pet.
3-9 9-17 17-43	0.4 0.4 0.1	0.3 0.7 0.1 0.2	tr. tr.	tr. tr. tr.		5.5 4.1 3.7 4.3 2.0	6.6 5.2 4.2								-		cations Fct. 17 21 12 6	Pet
3-9 9-17 17-43	0.4 0.4 0.1	0.3 0.7 0.1 0.2	tr. tr.	tr. tr. tr.	meq/100 g	5.5 4.1 3.7 4.3 2.0	6.6 5.2 4.2	Gibheite									cations Fct. 17 21 12 6	Pet
3-9 9-17 17-43 43-84+	0.4 0.4 0.1 0.3	0.3 0.7 0.1 0.2 0.1	tr. tr. tr. tr.	ter. ter. ter. ter.	meq/100 g	5.5 4.1 3.7 4.3 2.0	6.6 5.2 4.2 4.6 2.4	Gibbeite	-						. chlorite, V	m. = Verm	cations Pet. 17 21 12 6 17	
3-9 9-17 17-43 43-84+	0.4 0.4 0.1 0.3	0.3 0.7 0.1 0.2 0.1	tr. tr. tr. tr.	ter. ter. ter. ter.	meq/100 g	5.5 4.1 3.7 4.3 2.0	6.6 5.2 4.2 4.6 2.4					net. — N	feat morillo	nite, Chl	chtorite. V		cations Pet. 17 21 12 6 17	
3-9 9-17 17-43 43-84+	0.4 0.4 0.1 0.3	0.3 0.7 0.1 0.2 0.1	tr. tr. tr. tr.	ter. ter. ter. ter.	meq/100 g	5.5 4.1 3.7 4.3 2.0	6.6 5.2 4.2 4.6 2.4					hit. — A lot. — b Redection	iontmorillo morstratific	nite, Chi. — di layer, Qt biank — no		KI. — Kao d, dash —	cations Pct. 17 21 12 6 17	= mica
3-9 9-17 17-43 43-84+	0.4 0.4 0.1 0.3	0.3 0.7 0.1 0.2 0.1	tr. tr. tr. tr.	ter. ter. ter. ter.	meq/100 g	5.5 4.1 3.7 4.3 2.0	6.6 5.2 4.2 4.6 2.4					hit. — A lot. — b Redection	iontmorillo morstratific	nite, Chi. — di layer, Qt biank — no	z. — quartz, et determine	KI. — Kao d, dash —	cations Pct. 17 21 12 6 17	= míca
3-9 9-17 17-43 43-84+	0.4 0.4 0.1 0.3	0.3 0.7 0.1 0.2 0.1	tr. tr. tr. tr.	ter. ter. ter. ter.	meq/100 g	5.5 4.1 3.7 4.3 2.0	6.6 5.2 4.2 4.6 2.4					hit. — A lot. — b Redection	iontmorillo morstratific	nite, Chi. — di layer, Qt biank — no	z. — quartz, et determine	KI. — Kao d, dash —	cations Pct. 17 21 12 6 17	= mic
3-9 9-17 17-43 43-84+	0.4 0.4 0.1 0.3	0.3 0.7 0.1 0.2 0.1	tr. tr. tr. tr.	ter. ter. ter. ter.	meq/100 g	5.5 4.1 3.7 4.3 2.0	6.6 5.2 4.2 4.6 2.4					hit. — A lot. — b Redection	iontmorillo morstratific	nite, Chi. — di layer, Qt biank — no	z. — quartz, et determine	KI. — Kao d, dash —	cations Pct. 17 21 12 6 17	= mica

Soil Type: Ruston loam Soil Nos.: 855Miss-30-3

Location: Jackson County, Mississippi, SE 4, SE 4, Sec. 7, T 58, R 5W, 6 miles SE Hurley, 1/8 mile

W. Alabama State Line. Photo 7H-160

Vegetation and Land Use: Second growth Longleaf pine Drainage:: Well drained

Horizon and Beltsville Lab. No.

5612

0 to 3 inches. Dark grayish brown (10YR 4/2) very friable loam with weak medium crumb structure; clear smooth boundary; numerous roots; strongly scid.

5613

3 to 9 inches. Dark brown (10TR 4/3) with many fine distinct mottles of very dark gray (10TR 3/1) and reddish brown (5TR 4/4). (Mottles probably due to worm activity); very friable loam with weak medium crumb structure; gradual smooth boundary; many roots,

numerous worm casts; very strongly acid.

9 to 17 inches. Yellowish red (5XR 4/8) with few fine distinct mottles of very dark

gradual smooth boundary; many roots; few worm casts; very strongly acid.

5615

17 to 43 inches. Red (2.5TR 4/8) very frimble loam to silty clay loam with moderate medium subangular blocky structure; diffuse smooth boundary; some roots in upper part, a few extending to the bottom of horizon; very strongly acid.

B3t 5616

43 to 84+ inches. Yellowish red (5TR 5/8) very friable loam with weak medium subangular blocky structure; very strongly acid.

Notes: Colors refer to moist soil.

SOIL SURVEY LABORATORY Beltsville, Maryland SOIL No. 855Miss-30-4 LOCATION Jackson County, Mississippi
LAB. Nos. 5617 - 5621

		181b						Size clas	s and parti	cle diemet	r (mm) 3A	1						
	l		Yotal					Sand		SI				ĺ	382	Ços	rse frègme	nts 3
a		Sand	Silt	Clay	Vary	Coarse	Medison	Fine	Van. de-		int. III	Int. II	1	l	1	2A2		
Depth	Horlzon	1			coarse			I '	Very fine		l		۱	1		>- 2	2 - 19	19-
(In.)		(2-0.05)	0.002)	(= 0.002	(2~1)	(1-0.5)	(0.5-0.25)	10.23-0.27	Ker. 1-0.031	0.05-0.02	(U.U2- 0.002)	(0.2-0.02)	(2-0.1)	1	Cree		L 14	t. of _
		-		<u> </u>		Pe	i. af ≪ 2		·			-		l		Pct.		Genm
0-5	Al		34.6	7.2	0.1	0.7	1.8	28.7	26.9	l	17.8	66.0		r		-		П
5-10	A2	1	34.1	13.3	0,0	0.4	1.4	25.7	25.1		17.9	61.6		l		-		l
10-17	B1		31.8	19.9	0.1	1.3	1,0	24.4	21.5		16.7	55.4		l		l -		l
17-52	B2t	T -:-"	31.8 29.0	19.9 20.6	0.1	0.8	1,2	28,4	19.9		13.8	57.1		Γ		tr.		Г
52-72+	B3t	1	27.3	16.2	0.1	0.9	1.2	31.3	23,2		11.8	62.5		l		l -		l
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Depth	Organic	Nitrogen	C/N		Carbonata	Ext. Ires		4A1e	4A1b			4Blc	482	l			8Clc	8C1
(ln.)	carbon	1			as CaCO ₂	es Fe		% ber	Oven dry	COLE		ls ber	15 ber	l	WAD		(1:1)	(1:1
		1						-				_		l				
	Pet.	Pet.			Pet.	Pct.	g/cc	g/oc	g /cc		Pet.	Pet.	Pet.		in/in		KC	Hgf
0-5	1.14	0.055	21				T											5.0
5-10	0.37	0.029												l				4.8
10-17	0.15	0.021					L.			L .								4.8
17-52	0.06	0.013																4.
52-72+	0.02	0.006												1				4.0
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		Extractal	de bases	5Bla		6нь	¢	EÇ	5614				ation to dis	y	803		Base sat	wration
Depth	6N2d	602b	6P2a	6Q2a		Ext.	ļ										503	5C1
(in.)	Ça	Mg	Na	K	g.,		5A3e		Ext.			ÇEC	Ext.	15-bar	Ca/Mg		Sum	
			,,,,	"	Sum	acidity	Sum cations		AI			Sum	noni	Water			cations	NH40
		<u>'</u>	·	<u> </u>	meg/100 g		1 020000	'	·								Pct.	Pct.
0-5	0.6	0.6	tr.	0.1		5.1	6.4	ľ					,				20	
5-10	0.5	0.5	tr.	0,1		4.3	5.4					1					20	
10-17	0.6	0.4	tr.	0.1		4.5	6.0										18	
17-52	0.1	0.4	tr.	0.1		4.9	5.5					· ·				i	11	
52-72+	0.1	0.3	tr.	tr.		3.7	4.1										10	
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BÉRN-SCS-MYATTEVILLE, MB. 1846

Soil Type: Ruston loam Soil No.: \$55Miss-30-4

Location: Jackson County, Mississippi, RW 4, SE 4, Sec. 42, T 45, R 6W, 2 1/2 miles w. of Harelston.

Photo CZK-8H-134

Vegetation: Longlesf pine with an undergrowth of dogwood

Horison and Beltsville Lab. No.

Al 0 to 5 inches. Dark grayish brown (10TR 4/2) with few distinct mottles of strong brown (7.5TR 5/6) friable losm of weak medium crumb structure; gradual smooth boundary;

numerous grass roots; very strongly acid.

A2 5 to 10 inches. Strong brown (7.5MR 5/6) with many medium distinct mottles of dark
5618 grayish brown (10MR 4/2) and dark brown (7.5MR 4/2). (The mottles are presumably caused
by worm action.) Very friable losm of moderate medium crumb structure; gradual wavy
boundary; numerous roots; very strongly acid.

B1 10 to 17 inches. Yellowish red (5TR 5/6) frieble losm of weak medium subengular blocky 5619 structure; gradual smooth boundary; some pine roots; very strongly acid.

B2t 17 to 52 inches. Red (2.5YR 5/8-4/8), friable loam of weak to moderate medium subangular 5620 blocky structure; gradual wavy boundary, few pine roots; very strongly acid.

B3t 52 to 72+ inches. Yellowish red (5YR 4/8) with few medium distinct mottles of olive 5621 yellow (2.5Y 6/8), friable loam of weak medium subangular blocky structure; very strongly

_	OiL	SURV	'ET LAD	ORATO	KY LADC	OTUS ME	OF.	A	ugust 19	52
5	OIL	TYPE	Savannah fine sand	ly loam	LOCAT	FION .	Clarke	County,	Mississi p	<u>pi</u>
٠	SOIL	wos.	S61Mi	es-12-2		LAB.	NOS.	15136-	L5143	
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	DEPTH NCHES	PORIZON	VERY OARSE COARSE		VERY				2 A 2	TEXTURAL CLASS
			SAND SAND	MEDIUM FIN SAND SAN 0,5-0.25 0.25-	•	SILT 0.95-0.002	CLAY < 0.003	C. 2.0.02 0.0	> 2	
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Soil Type: Savannah fine sandy loam

Soil Nos.: SolMiss-12-2

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Drainage and Permeability: Mcderately well drained with medium runoff and internal drainage. Permeability is moderate in the upper part of the solum and slow in the lower part.

Farent Material: Coastal Flain terrace.

Collected by: J. S. Allen and Dean C. McMartry, Jr., May 15, 1961. Described by: H. L. Neel and R. C. Carter, May 15, 1961.

Horison and Idnoola Lab. No.

0 to 6 inches. Dark grayish brown (10YR 4/2) fine sandy losm; weak fine and medium granular structure; Ар 15136 very frieble; few fine roots; root and wormholes filled with material from A2; few fine soft black concretions: clear smooth boundary.

6 to 11 inches. Very pale brown (10YR 7/3) fine sandy loam; weak fine and medium granular and medium 15137 subangular blocky structure; friable; few fine roots; some mixing of Ap material in root and wormholes; few fine soft brown and black concretions; clear smooth boundary

11 to 22 inches. Yellowish brown (10YR 5/6) heavy losm; moderate medium and subangular blocky structure; 15138 friable; few fine roots; some material from A horizon in root and wormholes in upper part of horizon; few fine black and brown concretions; clear smooth boundary.

B21t 22 to 28 inches. Yellowish brown (10YR 5/6) losm; common fine faint pale brown (10YR 6/3) mottles; moderate fine and medium subangular blocky structure; friable; few fine roots; few fine soft brown concre-15139 tions; common fine voids; clear smooth boundary.

ROOM 28 to 35 inches. Mottled yellowish brown (10YR 5/6) and light brownish gray (10YR 6/2) light clay losm; mottles are many fine and medium distinct; moderate medium and coarse subangular and angular blocky 15140 structure; friable; few fine roots; common fine soft brown concretions; common fine voids; patchy clay

gradual smooth boundary.

35 to 44 inches. Mottled yellowish brown (10YR 5/6) light brownish gray (10YR 6/2) and yellowish red **B**23tx 15141 (5YR 4/8) clay bem; mottles are many fine and medium, distinct and prominent; moderate fine and medium subengular and angular blocky structure; friable to firm; slightly plastic; few fine roots; few fine voids; few vertical cracks less than 1 inch wide filled with light gray (10YR 6/1) heavy clay loam; gradual smooth boundary.

B24tx 44 to 56 inches. Mottled yellowish brown (10YR 5/6) gray (10YR 5/1) and yellowish red (5YR 4/8) clay losm; mottles are many fine and distinct prominent; moderate medium and coarse subangular and angular blocky 15142 structure; firm; slightly plastic; clay films in cracks and on ped faces; few vertical streaks of light gray (10YR 6/1) clay loam; gradual smooth boundary.

56 to 68 inches. Nottled yellowish red (5YR 4/8) light gray to gray (10YR 6/1) and yellowish brown (10YR B25tx 15143 5/6) clay loam; mottles are many fine and medium, distinct and prominent; moderate medium and coarse subangular blooky and angular blooky structure; firm; slightly plastic; few vertical cracks of light gray to gray (10YR 6/1) clay loss; clay films on ped faces and in cracks.

Remarks: The AB, B22t, and B25tx horizons were sampled for the Bureau of Public Roads. Colors given are for moist conditions.

Mineralogy (Method 7E): The mineralogy of the very fine sand is uniform throughout. Quartz and feldspar dominate.

SOIL SURVEY LABORATORY Lincoln, Nebr. Merch 1959

SOIL TYPE Savannah LOCATION Forrest County, Mississippi very fine sandy loam

SOIL NOB. S56Miss18-1

LAB. NOS. 8997-9006

		LBI	8	PARTI	CLE SIZ	E DISTRIB	UTION (in	mm.) (pe	r cent)	3 <i>A</i>		İ
DEPTH INCHES	HORIZON	VERY COARSE SAND	COARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY			2A2 > 2	TEXTUR/ CLASS
		2-1	1-0.5	0.5-0.25	0.25-0.10	Q. 10-0 Q5	0.05-0.002	< 0.002	0.2-0.02	Q02-Q002	-	į
0-3	Al	0.6	1.5	2.8	18.6	12.4	57.3	7.4	47.8	33.8		sil
3-6	A21	0.1	1.2	2.6	17.9	12.2	58.1	7.9	48.0	34.5	-	sil
€-10	A22 `	0.2	1.la		16.6a	12.5a	56.2	10.9	46.9	33.0	-	sil
0-13	Bl	0.1	1.Qa	2.3a	17.4a	12.8a	52.6	13.8	46.9	30.3	-	811
13-26	B21t	0.1	1.0a		16.5a		48.9	19.4	44.5	27.3	_	1
:6-36	B22tx	0.1	1.0a	2.7a	17.6a	12.7a	46.1	19.8	46.3	24.9	-	1
36-42	B23tx	0.1	0.9a		17.0a		39.9	26.1	43.9	21.7	-	1.
2-52	B24tx	0.1	0.9a	2.6a		15.0a	37.5	24.6	46.5	20.2	-	1
2-61	B3tx	0.1	0.8a	2.8a	21.4e.	15.8a	34.7	24.4	48.5	17.8	-	1.
1-73+	C	0.1	1.3a	3.la	22.5a	16.7a	33.0_	23.3	53.6	12.5	_	1
	рH	*****************	ORGA	NIC MA	TTER	Free					URE TE	
8Cla			6Ala	6Bla	1	ïron						482
U	1;5	1:10	ORGANIC CARBON	NITRO- GEN	C/N	%Fe ₂ O ₃		CaCO3 equiv- atent	,	1/10 ATMOS.	1/3 .20mta	15 ATMOS
1:1			%	%		601a		%		%	- 5	5
5.0			3.09	0.106	29	0.6						4.8
5.3				0.049		0.7		ļ	•			3.0
5.3				0.028	17	1.0		į				3.8
4.9				0.022		1.3			i			5.0
4.9 4.8			0.14	0.018		1.9	į					7.5
4.8			0.09		ļ	2.1	•	i i	į			7.6
4.8			0.04			3.0		ĺ	Ī			10.1
4.9			0.03			2.9	İ	1	Ī	İ		9.7
4.9			0.03			2.9		Ì	}			9.8
4.9 4.9	*********	**********	0.03	****************	} ***********	2.0	**************************************	ļ		·		9.7.
Ala		EXTRAC	TABLE (CATIONS	5Bla	BASE SAT	_ 503	5 Bla		Ca/Mg		; 1
CATION	6 N2 b	602b	6Hla	612a	692a	-2.	Base	Sum.	Sum	1		i

 Soil Type: Savannah very fine sandy loam

Soil Nos.: 856Miss18-1

Location: Forrest County, Mississippi on Griffin timber holdings east of Petal, Mississippi on south side of Mississippi Righway 42, 5 miles east of Ametion 11 and 42. (T5N, R12W, Sec. 34, Photo CZH-1H-136).

Vegetation and Use: Open woodland dominated by longleaf pine with understory of widely separated blackgum, dog-

wood, huckleberry and gallberry.

Slope and Land Form: Nearly level (1 percent) on flat ridge.

Drainage and Permeability: Moderately well drained. Permeability is moderate in the horizons above the fragipan and

slow in that layer.

Parent Material: Coastal plain sandy material. Collected and Described by: Joe Kubota, M. H. Shaffer, Y. H. Havens, April 11, 1956.

Horizon and Iincoln-Lab. No.

9006

O to 3 inches. Very dark gray (10YR 3/1 and 3/2 moist) very fine sandy loam; very friable; weak medium

Horizon of Al, A2, and some B material. Dark grayish brown to very dark grayish brown 8998 (10YR 4/2 and 3/2 moist) very fine sandy loam; medium to fine weak crumb structure; friable; many worm casts and pores filled with material from above and below. Many fine fibrous and fine to coarse woody roots; clear, wavy boundary. A22 6 to 10 inches. Erown to yellowish brown (10YR 5/3 and 5/4 moist) beam or very fine sandy loam; weak medium subangular blocky structure breaking to weak medium and fine granular; friable; many fine roots; 8999 clear, wavy boundary. 10 to 13 inches. Yellowish brown to light olive brown (10YR 5/6 and 2.5Y 5/6 moist) loam or silt loam; weak medium subangular blocky structure; friable; many worm casts; clay skins in root channels and fine 9000 pores; clear, wavy boundary. 721t. 13 to 26 inches. Yellowish brown (10YR 5/6 moist) losm; week medium subangular structure; friable; clay skin faint and patchy on ped faces and continuous in large and fine pores and root channels; many fine 1000 woody and few medium woody roots; clear, smooth boundary. 26 to 36 inches. Yellowish brown to light clive brown (10YR 5/6 and 2.5Y 5/6 moist) losm; weak medium to fine subangular blocky structure; friable; numerous firm to very firm concretions 1/8 inch to 1/2 inch with continuous clay skin and with yellowish brown (10YR 5/6 moist) to dark reddish brown centers; 799tx 9002 concretions are more numerous in lower than in upper part of horizon; many medium and fine woody roots; abrupt wavy boundary. B23tx 36 to 42 inches. Yellowish brown (10YR 5/6 moist) loam or very fine sandy loam; mottled brown and pale brown; soil is massive in place and breaks into medium to coarse subangular blocky structure; friable 9003 to firm; clay skin patchy; root bleaching on horizontal faces of peds; clear smooth boundary. 42 to 52 inches. Yellowish brown (10YR 5/8 moist) loss; soil tends to break out into very coarse and coarse subangular blocky to prismatic ped structure which breaks into moderate medium subangular blocky structure; friable to firm; numerous fine pores and fine cracks; few dark brown concretions; smooth **E**24tx 9004 gradual boundary. 52 to 61 inches. Yellowish brown (10YR 5/8 moist) loam; with common fine distinct yellowish red (5YR B3tx 4/8 mosts mottles; in place soil is slightly firm, appears massive, and has some light yellowish brown (2.5Y 6/4) vertical streaks; friable; slightly plastic, slightly sticky when wet; few fine roots and few fine pebbles; bleaching along root channels; smooth gradual boundary. 9005 61 to 73 inches plus. Tellowish brown (10YR 5/6 and 5/8 moist) losm; soil appears massive in place; slightly plastic, slightly sticky when wet; friable; dark yellowish brown (10YR 4/4) clay skins in the soil along pores and dracks; few yellowish red (5YR 5/8) stains and firm to very firm concretions.

	SOIL	SURVEY	LABORATO	RY Idnooln,	Nebr.	Mar	ch 1959	. -
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	·	very	fine sandy loam					
		SOIL NOS.	S56Miss18-2	LAB.	NOS	9007-9015	, / 4 - 4 4 4 - 4 - 4 - 4 - 4 - 4 -	,400
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Soil Type: Savannah very fine sandy loss

Soil Nos.: 956Miss18-2

Icoation: Forrest County, Mississippi on Griffintimber holdings on north side of Mississippi Highway 42, 4.6 miles

east of Righway Junction US 11 - Mississippi 42 (75%, R12W, Sec. 34, Photo CZE-18-136).
Vegetation and Use: Open woodland dominated by longlosf pine with understory of widely separated blackgum, dogwood,

hunkleberry and gallberry.

Slope and Land Form: Hearly level (1 percent) on flat ridge.

Drainage and Permeability: Moderately well drained. Permeability is moderate in the horizons above the fragipan and slow in that layer.

Parent Material: Coastal plain sandy material.

Collected and Described by: Joe Mibota, M. E. Shaffer, and Y. H. Havens, April 13, 1956.

Horrison and Lincoln lab. Ho.

01-02 3 to 0 inch. Litter of pine needles, leaves and stems of grasses.

O to 3 inches. Very dark brown (10YR 2/2 and 3/2 moist) very fine sandy loss; weak medium and fine granular structure; friable; many fine fibrous and a few medium and fine woody roots; bits of charcoal present; wormholes and a few worm casts; a very few fine extremely firm concretions; clear smooth 9007 boundary.

3 to 5 inches. Mixture of material from above and below; friable fine sandy loan; weak medium and fine 9008 granular structure; few fine firm concretions; many fine and few medium roots; clear smooth boundary.

5 to 8 inches. Light yellowish brown to light olive brown (10YR 6/4 and 2.5Y 5/6 moist) loss; weak medium to fine subangular blocky structure which breaks to fine granular; friable; many fine and medium 9009 roots; few fine firm concretions; wormholes and a few worm casts; clear smooth boundary.

8 to 12 inches. Yellowish brown (10YR 5/4 and 5/6 moist) losm; weak medium and fine subangular blocky structure; friable; slightly plastic, slightly sticky when wet; few firm concretions; clay skin patchy in pores; few worm casts; few to many fine roots; clear smooth boundary. 9010

12 to 24 inches. Yellowish brown (10YR 5/6 and 5/8 moist) heavy losm; weak medium to fine subangular blocky structure; slightly plastic, slightly sticky; firm to friable; many fine roots; few soft concretions; horison essentially free of mottles; clear smooth boundary. B21t 9011

24 to 32 inches. Yellowish brown (10YR 5/6 moist) loss; weak medium and fine submigular blocky structure; friable; slightly plastic, slightly sticky when wet; few firm and soft concretions; clay skin patchy along peoble soil mass interface and on ped faces, but it is continuous in fine pores; common, fine, faint to distinct mottles of strong brown and dark red; few fine roots; clear smooth boundary. B22t x 9012

32 to 42 inches. Brown (10YR 5/3 moist to wet) loss; week medium to fine subangular blocky structure; friable; plastic and sticky when wet; numerous firm concretion-like mass with strong brown surface coats; bleaching along root channels; few fine roots; abrupt wavy boundary. 323tx 9013

42 to 44 inches. Fellowish brown (10TR 5/6 and 2.5Y 5/6 wet) fine sandy losm; interior of peds strong brown (7.5TR 5/6); coarse platy and subangular blocky structure; firm in place but friable when removed; slightly plastic, slightly sticky; few fine roots along gray streaks; clear smooth boundary. B24tx 9014

44 to 48 inches plus. Strong brown (7.5TR 5/6 and 5/8 wet) with dark red mottles that are common, fine, faint to distinct fine sandy loss; massive in place but when removed breaks into very coarse prismatic to columnar peds; firm in place; friable when removed; slightly plastic, slightly sticky; clay skins E25tx 9015 present along horisontal faces of peds and in fine pores.

SOIL SURVEY LABORATORY Lincoln, Nebr. August 1962 SOIL TYPE Savannah LOCATION Monroe County, Mississippi silt loam 80IL NOS. 15172-15178 LAB. NOS. 15172-15178 PARTICLE-SIZE DISTRIBUTION (in mm.) (per cent) 3A1 2A2 PEPTH HORIZON COARSE COARSE MEDIUM FINE SAND SILT > 2 1-0.5 0.5-0.25 0.25-0.10 0.10-0.05 0.05-0.002 < 0.002 0.2-0.02 0.02-0.002 0.94 3.56 4.9 18.2 5.7 56.8 10.0 39.5 31.5 9-7_ A

Soil Type: Savannah silt loam Soil Nos.: S61Miss-48-3

Location: Memore County, Mississippi, 32 miles east of Amory on U. S. Highway 278 and 200 feet north of highway. SE 1/4 SE 1/4, Sec. 5, T138, RSE.

Vegetation and Use: Cotton.

Slope and land Form: Cently sloping (3 percent slope).

Brainage and Permeability: Moderate well to well drained with medium to rapid runoff and medium internal drainage.

Fermeability is moderate in the upper part of the solum and slow in the lower part.

Parent Material: Sandy Coastal Flain.
Collected by: J. S. Allen and Dean C. McMurtry, Jr., May 17, 1961.
Described by: L. C. Marphree and R. C. Carter, May 17, 1961.

Horison and Lincoln Tab. No.

O to 7 inches. Brown to dark brown (LOYR 4/3) silt loam with high sand content; weak rine granular and weak medium subangular blocky structure; very friable; few fine roots; few fine brown and black concretions; undecayed crop residue in lower part of plow layer; clear smooth boundary. Æ 15172

7 to 19 inches. Strong brown (7.5TR 5/6) heavy losm or clay losm; moderate fine and medium subangular blocky structure; friable; slightly plastic; few fine roots; few fine and medium black and brown concremolt 15173 tions: clear smooth boundary.

B22t 19 to 23 inches. Strong brown (7.5YR 5/6) heavy losm or clay losm; common medium prominent mottles of dark 15174 red (2.5YR 3/6); moderate fine subangular blocky structure; friable; few fine and medium black and brown concretions; gradual smooth boundary

23 to 35 inches. Mottled dark red (10P 3/6), yellowish brown (10YR 5/4) and light gray to gray (10YR 6/1) **B23t**x sandy clay loam; mottles are many medium and coarse, distinct and prominent; moderate coarse and very coarse platy structure; breaks into moderate medium subangular blocky structure; firm; compact and brittle; 15175 this horizon is in thin horizontal beds of gray, dark red and yellowish brown layers; few fine voids; gradual smooth boundary.

35 to 42 inches. Mottled dark red (10R 3/6) light gray to gray (10YR 6/1) and yellowish brown (10YR 5/4) B24tx sandy clay loam; mottles are many medium and course, distinct and prominent moderate course and very course platy structure; breaks into moderate medium subangular blocky structure; firm; compact and brittle; hori-15176 zontal bedding not as strong as horizon above; few fine voids; clear smooth boundary.

42 to 53 inches. Dark red (2.5YR 3/6) to (10R 3/6) sandy clay loss with common medium and coarse prominent yellowish brown (10YR 5/4) mottles; many mottles are in old root and wormholes; weak coarse angular and subangular blocky structure; friable; few vertical cracks of yellowish brown (10YR 5/4) sandy clay loss; B31 15177 diffuse smooth houndary.

53 to 55 inches. Dark red (10R 3/6) light sandy clay loam; mottled with common medium and coarse, distinct and prominent yellowish brown (10YR 5/4) and pale brown (10YR 6/3) mottles; weak coarse angular and subangular blocky structure; friable. RW 15178

Remarks: The B21t. B23tx, and B31 horizons were sampled for the Bureau of Public Roads. Colors given are for moist soil.

Mineralogy (Nathod 7B): The mineralogy is uniform throughout. Quartz and feldepar dominate the very fine sand, with small amounts of kyanite, sircon, and tournaline present. Thin, patchy clay films observed in the B2lt, B23tx, and B31 horizons under a stereoscopic microscope.

SOIL SURVEY LABORATORY Lincoln, Nebr. August 1962

SOIL TYPE Savannah LOCATION Monroe County, Mississippi silt loam

SOIL NOS. S61Miss-48-4. LAB. NOS. 15179-15185

	enbapadhabdudu te;c u j T		Bla	PARTI	CLE-SIZ	E DISTRIB	UTION (in	тт.) <u>(</u> p<	r cent)	3A1		
DEPTH		VERY	İ			VEPY	į	į			2A2	TEXTURAL
INCHES	HORIZON	COARSE	SAND	MEDIUM SAND	FINE	FINE	S!LF	CLAY			> 2	CLASS
L		2-1	1+0.5	0.5-0.25	0. 25-0, 10	C.18-0.05	0.05-0.002	< 0.002	0.2-0.02	0.02-0.792		
0-7	Αp	0.28	0.8	6.2	29.0	4.1	52.6	7.1	40.7	26.7	_	sil
7-19	B21t	<0.1	0.5	5.2	23.2	3.2	44.7	23.2	29.2	27.3	-	1
19-23	B22t	<0.1	0.5	5.9	28.9	4.1	43.9	16.7	32.3	26.6		1
23-27	B23tx	<0.1	0.5	6.2	30.0	4.1	39.2	20.0	30.5	23.9	-	1
27-37	B24tx	<0.1	0.5	6.3	29.8	.3•9	34+3	25.2	28.1	20.8	-	1
27_40	मिया 🕴	≤ <u>Ω_1</u>	0.5	7.4	32.6	7.0	27.6	27.0	25.2	18.വ		ct/scl

Soil Type: Savannah silt loam

Soil Type: Savarmah silt loam

Soil Type: SciMiss-48-4

Location: Monroe County, Mississippi, 42 miles east of Hatley on blacktop road, 0.9 mile north and 0.4 mile west on gravel road, about 300 feet north of road. SW 1/4 SW 1/4, Sec. 18, T128, ROE.

Vegetation and Use: Vetch - cover crop.

Slope and Land Form: Gently sloping (3 percent slope).

Drainage and Permeability: Moderately well to well drained with medium to rapid runoff and medium internal drainage.

Permeability is moderate in the upper part of the solum and slow in the lower part.

Parent Material: Sandy Coastal Plain.

Horison and **Iáncoln** Lab. No.

0 to 7 inches. Dark grayish brown (10YR 4/2) silt loss with high sand content; weak fine and medium gran-Αφ 15179 ular structure; very friable; few fine roots; material from B horizon in root and wormholes; few fine soft black and brown concretions; few fine pieces of charcoal; abrupt smooth boundary.

7 to 19 inches. Brown to dark brown (7.5YR 4/4) heavy loam; moderate fine and medium subangular blocky structure; friable; slightly plastic; few fine roots; few fine soft brown and black concretions; clear **B**≥1t 15180 smooth boundary.

B22t 19 to 23 inches. Strong brown (7.5YR 5/6) heavy loam; common medium prominent dark red (2.5YR 3/6) mottles; 15181 moderate medium subangular blocky structure; friable; few fine roots; clear wavy boundary.

B23tx 23 to 27 inches. Mottled dark red (10R 3/6), strong brown (7.5YR 5/6) and yellowish brown (10YR 5/4) heavy sandy loan; many medium and course, faint and prominent mottles; moderate course and very course platy structure; breaks into moderate medium subangular blocky structure; firm; few fine voids; few vertical cracks 1 to 2 inches wide filled with yellowish brown (10YR 5/4) sandy loam; gradual smooth boundary. 15182

POLICE 27 to 37 inches. Mottled dark red (10R 3/6), yellowish brown (10YR 5/4), and pale brown (10YR 6/3) sandy clay losm; mottles are many medium and coarse, faint and prominent; moderate coarse and very coarse platy 15183 structure; breaks into moderate medium subangular blocky structure; firm; compact and brittle; this horizon is in thin, horizontal beds of gray, dark red and yellowish brown layers; few fine voids; patchy clay films on peds and in cracks; few vertical cracks filled with yellowish brown (10YR 5/4) sandy loam and few with light brownish gray (2.5Y 6/2) sandy clay loam; gradual smooth boundary.

37 to 49 inches. Dark red (10R 3/6) sandy clay loam with common medium prominent mottles of yellowish brown (10YR 5/4) and few medium prominent mottles of light gray to gray (10YR 6/1); mottles are segregated in B31 15184 pockets, old root and worm channels; moderate coarse angular and subangular blocky structure; friable; patchy clay films on ped faces and in cracks; few vertical cracks filled with yellowish brown (10YR 5/4) sandy loss and few with light brownish gray (2.5Y 6/2) sandy clay loss; diffuse smooth boundary.

49 to 62 inches. Bark red (10R 3/6) light sandy clay loam with common medium prominent mottles of yellowish brown (10YR 5/4); weak coarse angular and subangular blocky structure; friable; patchy clay films on ped faces and in cracks. B32 15185

Remarks: The E21t, E24tx, and E31 horizons were sampled for the Eureau of Public Roads. Colors given are for moist soil.

Mineralogy (Method 7B): The mineralogy is uniform throughout. Quartz and feldspar dominate the very fine sand, with small amounts of kyanite, zircon, and tourmaline present.

SOIL Sharkey clay SOIL Nos. D45-Mi-017 LOCATION Tunica County, Mississispi

SOIL SURVEY LABORATORY Beltsville, Maryland LAB. Nos. 46264 - 46269

(in.) 0-4	Ap Al2 Al3 AC Cl C2	Send (2-0.05)	34.4 31.8 33.0 35.0 31.8 35.6	60.3 64.6 62.6 58.8 65.3 61.8	0.3 0.2 0.2 0.4	ı		Sand Fine (0.25–0.1)	Very fine (0.1-0.05)	SH	t (nt. 111	Int. II (0.2-0.02)	(2-0.1)		382 Cm	2A2 >= 2 Pct.	2 - 19 Pc	19-
(in.) 0-4	Ap A12 A13 AC C1 C2	-	34.4 31.8 33.0 35.0 31.8	60.3 64.6 62.6 58.8	0.3 0.2 0.2 0.4	(1-0.5) Pd 0.6 0.5 0.6	(0.5-0.25) L of < 2 : 0.4 0.4	(0.25-0.1)	(0.1–0.05)	0.05-0.02	(0.02-	(0.2-0.02	(2-0.1)		Cm	2A2 >= 2	2 - 19 Pc	19-
4-8 8-13 43-17 7-24 (4-42 (6n.) No.	A12 A13 AC C1 C2 6A3a Organic	•	31.8 33.0 35.0 31.8	64.6 62.6 58.8	0.2	0.6 0.5 0.6	0.4	1.5	2.5					1 1	1 1	Pct.	~ ~ 7	
4-8 8-13 43-17 7-24 (4-42 (6n.) No.	A12 A13 AC C1 C2 6A3a Organic		31.8 33.0 35.0 31.8	64.6 62.6 58.8	0.2	0.5 0.6	0.4				-			-	$\overline{}$		T	6mm
8-13 A 3-17 A 7-24 C 0-4 4-8 8-13 3-17 7-24	A13 AC C1 C2 6A3a Organic		33.0 35.0 31.8	62,6 58,8	0.2	0.6			1.5									
3-17 / /-24 (AC C1 C2 6A3a Organic		35.0 31.8	58.8 65.3 61.8	0.4			1.2	1.9							i		
0-4 4-8 8-13 3-17 7-24	6A3a Organic		31.8	65.3 61.8	-			1.7	1.8									
0-4 4-8 8-13 3-17 7-24	rganic					0.1	0.2	0.7 0.6	1.9	-								
0-4 4-8 8-13 3-17 7-24	rganic				_			Belli densit				ater conta					pH	
0-4 4-8 8-13 3-17 7-24						l <u></u>		ī		4D1					4C1			١
4-8 8-13 3-17 7-24	fatter	Hitrogen	C/N		Carbonate as CaCO _B	Ext. Iron as Fo		4Ale % ber	4A1h Oven dry	COLE		4B1c ⅓ ber	482 15 ber		WRD		8C(c (1:1)	8C.
4-8 8-13 3-17 7-24	Pet.	Pct.			Pet.	Pot,	g/cc	2/00	g/oc		Pct.	Pet.	Pct.		in/in		KCI	H ₂
7-24	2.5 2.2 2.3											_						5. 5.
	1.6			Ī						,								5.
	1.2																_	5. 5.
		Extractab	ie beses S	581a		6Hla	C	ic	6614				etios to cle		803		Buse sate	uratio
$ extstyle ag{7}$	8N2d	802b	8P2a	5Q2+		Ext.											503	50
opth (in.)	Ca	Mg	Ne Ne	K K	Sem	acidity	5ASa Sum cations		Ext. Al			CEC Sum	Ext. Iron	15-bar water	Ca/Mg		Sum cations	NH4
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0-4 4-8	25.9 28.0	9.8		1.1		7.6	43.8 45.6	l									83 84	
	27.3	10.2		0.7		7.1 6.4	44.5	l									86	l
3-17	25.6	10.2	-	0.6		7.7	44.1	\vdash									83	\vdash
7-24	24.7 23.3	11.8 11.9		0.6		7.3 7.3	44.4 43.2										84 83	
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epth (in.)	Mt.	Chi.	Vm. 7A;	Mi.	Int.	Qtz.	KI.	Gibbalte										
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USDA-6C5-HYAT78VILLE MD 1966

Soil Type: Sharkey clay

Soil No.: D45Mi-O17
Location: Tunica County, Mississippi, slightly west of and across road from tenent house. SE 1/4
SE 1/4, Sec. 33, T 45, R 11W

Collected by: R. W. Simonson, H. B. Vanderford, and C. B. Melton Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horizon and Beltsville Lab. No.

O to 4 inches. Very dark grayish brown (10YR 3/2) clay; moderate, fine granular structure; Ap 46264 friable; very plastic, very sticky; medium acid; clear smooth boundary.

4 to 8 inches. Very dark grayish brown (10YR 3/2) clay; common, fine distinct dark yellowish brown (10YR 4/4) mottles; moderate fine granular structure; very plastic, very A12 46265 sticky; friable to firm; few fine black concretions; medium acid; clear smooth boundary.

8 to 13 inches. Dark gray (10YR $\frac{1}{1}$) clay; many fine and medium distinct strong brown (7.5YR $\frac{5}{6}$) and faint gray (10YR $\frac{5}{1}$) mottles; massive; firm; very plastic, very sticky; few fine black concretions; medium acid; gradual wavy boundary. A13 46266

13 to 17 inches. Mottled dark gray (10YR 4/1) strong brown (7.5YR 5/6) and gray AC 46267 (10YR 5/1) clay; massive; firm; very plastic, very sticky; some mixing of material from A horizon in cracks; few fine black concretions; medium acid; gradual amouth boundary.

17 to 24 inches. Dark gray (10YR 4/1) clay; many fine and medium distinct strong brown (7.5YR 5/6) and brown (10YR 4/3) mottles, massive; very plastic, very sticky; firm; some c146268 mixing of material from A horizon in cracks; few fine black concretions; few slickensides up to 2 inches across; medium acid; gradual smooth boundary.

24 to 42 inches. Very dark gray (10YR 3/1) clay; many fine distinct dark brown (10YR 4/3) 46269 mottles; massive; very plastic; very sticky, firm; common slickensides up to 2 inches across; medium acid.

SOIL Sharkey clay SOIL Nos. DA5-MI-Q18 LOCATION Tunica County, Mississippi

SOIL SURVEY LABORATORY Beltsville, Maryland __ LAB. Nos. <u>46270 - 46273</u> 1816 Size class and particle diameter (mm) SA1 Coorse fragments 384
 Very course (2-1)
 Coerse (1-0.5)
 Modition (0.5-0.25)
 Fine (0.1-0.05)
 Very fine (0.1-0.05)
 Int. III (0.2-0.02)
 Int. III (0.2-0.02)
 2A2 Silt Send Clay Copth (in.) Horizon 2 - 19 | 19-76 **>** 2 (2-0.05) (0.05-0.002) (< 0.002) Çm Pct. of __ Pet. 65.2 65.0 59.9 58.9 32.1 32.5 37.4 39.4 0.5 0.4 0.9 0.7 0.7 0.4 0.8 0.4 AD Al2 0.2 4-13 13-23 23-36 0.2 C2E 0.5 0.5 0.7 **Bulk density** 6A3a 4C1 401 Depth 4Alh 492 **BCIc** 8Cla Organic Ext. icon (In.) as CaCO_a as fe Matter COLF WRD is ber Oven dry (1:1)(1:1) 36 ber 15 bar KCI H20 in/le Pet Pet. Pct. Pct. Pct. Pct. Pct. 2.4 1.8 5.9 6.2 0-4 4-13 13-23 23-36 1.1 0.5 5.0 6614 Extractable bases 581a 6ELa Ratios to clay 5C3 5Ç1 6N26 602b 6P2a 6Q2a Ext. Depth SA3a Sum cettons Ext. Ext. 15-bar water Ce/Mg CEC Ce × Mg acidity NH₄OAc Sum Pct. Pct. 26.9 27.1 26.9 19.6 6.8 44.1 5.4 42.1 7.8 44.9 8.2 39.8 9.4 8.9 9.6 11.3 1.0 85 4-13 13-23 23-36 0.7 0.6 0.7 87 83 Clay Fraction Analysis 7Alb-d Depth (in.) Chi. Qtz. KJ. Mt. ٧m. 7A2 Mt. - Montmoritionite, Chi. - chlorite. Vm. - Vermiculite, mi - mics, Int. - tatagatratified leyer, Qtz. - quartz, Ki. - Keelinkin Relative executs: black — not determined, dash — not detected, tr. — trace, x — small, xx — moderate, xxx — abundant, xxxx — domin

#894-909-HTATTETIALE, MG. 1544

Soil Type: Sharkey clay Soil No.: D45Mi-018

Location: Tunica County, Mississippi, about 20 rods south of gravelled road, NW 1/4, NW 1/4, Sec. 2, T 58, R 11W

Collected by: R. W. Simonson, H. B. Vanderford, and C. B. Melton Described by: R. C. Carter, W. A. Cole, and Frank Scott

Horizon and **Beltsville** Lab. No.

Ар 146270

0 to 4 inches. Very dark grayish brown (10YR 3/2) clay; moderate fine granular structure; friable to firm; very plastic, sticky; abrupt smooth boundary.

A12 46271 4 to 13 inches. Dark gray (10TR 4/1) clay; many medium fine distinct strong brown (7.5TR 5/6) and yallowish brown (10TR 5/6) mottles; massive to week, coarse subangular blocky structure; very plastic, very firm, very sticky, diffuse irregular boundary.

C1 46272

13 to 23 inches. Dark gray (10YR 4/1) to gray (10YR 5/1) clay; many fine distinct strong brown (7.5IR 5/6) and dark yellowish brown (10YR 4/4) mottles; massive; very plastic, very sticky, very firm; few cracks filled with material from the A horizon; diffuse irregular boundary.

C2g 46273 23 to 36 inches. Gray (10TR 5/1) clay; many fine distinct strong brown (7.5TR 5/6) and dark yellowish brown (10TR 4/4) mottles; massive; very plastic, very sticky, very firm; common slickensides; few cracks filled with material from A horizon.

	SOIL SURV	EI EABORAT			BORT TAOS
	SOIL TYPE	Stough	LOCATION	Clarke County, Mi	seiseip <u>oi</u>
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			, A = 2		,

Soil Type: Stough loam Soil Nos.: S61Miss-12-3

BOLL NOS.: Solidas-12-5
 Location: Charke County, Missiasippi, 1/2 mile west of Enterprise. 300 feet west and 500 feet south of northwest corner of SW 1/4 SW 1/4, Sec. 23, T4W, RDAE.
 Vegstation and Use: Dallisgrass pasture.
 Slope and Land Form: Nearly level (1/2 percent slope).

Drainage and Permeability: Somewhat poorly drained with slow runoff and slow internal drainage. Fermeability is moderate in the upper part of the solum and slow in the lower part.

Parent Material: Coastal Plain terrace.

Collected by: J. S. Allen and Dean C. McMartry, Jr., May 16, 1961. Described by: R. C. Glenn and R. C. Carter, May 16, 1961.

Macoln Lab. No.

O to 4 inches. Very dark gray (10YR 3/1) losm; weak fine and medium granular and weak medium subangular blocky structure; friable, common fine roots, few fine and medium black and brown concretions; few root and filled with material from A2 in lower part of horizon; clear smooth boundary. 15144

4 to 9 inches. Nottled yellowish brown (10YR 5/4) and dark grayish brown (10YR 4/2) losm; mottles are many fine distinct, and appear to be due to mixing by worm activity; weak fine and medium granular and subengular blocky structure; friable; common fine roots; few fine and medium brown and black concretions; 15145 clear smooth boundary.

9 to 17 inches. Brownish yellow (low 6/6) losm; weak fine and medium subangular blocky structure; friable; few fine roots; common fine and medium brown and black concretions; clear smooth boundary. B21t 15146

17 to 24 inches. Mottled yellow (2.5Y 7/6) yellowish brown (10YR 5/6) and light gray (10YR 7/1) losm; mottles are many fine and medium distinct; moderate fine and medium subangular blocky structure; friable; few fine roots; common fine and medium and few coarse black and brown concretions; few fine voids; clear ROOKY . 15147 smooth boundary.

24 to 34 inches. Mottled light yellowish brown (2.5% 6/4) light gray (2.5% 7/2) and yellow (10% 7/6) fine sandy loam; mottles are many fine faint and distinct; weak medium and coarse subangular and angular blocky structure; friable; vertical cracks less than 1 inch wide of pale yellow (5% 7/3) loamy sand; common fine TIB31x 15148 and medium brown and black concretions; common fine voids; gradual smooth boundary.

34 to 50 inches. Mottled light gray (2.5% 7/2) yellowish brown (10% 5/6) and yellow (10% 7/6) sandy losm; mottles are many fine faint and distinct; weak coarse and medium subangular and angular blocky structure; friable; few fine brown and black concretions; common fine voids; few vertical cracks less than 1 inch wide of pale yellow (5% 7/3) losmy sand; gradual smooth boundary. TTBSSx 15149

50 to 65 inches. Mottled strong brown (7.5YR 5/8) light gray to gray (10YR 6/1) and brownish yellow (10YR 6/6) heavy sandy loam; mottles are many fine and medium distinct; structureless; friable; few vertical cracks filled with light gray to gray (N 6/) sandy clay loam and few cracks of pale yellow (5Y 7/3) loamy IIC 15150 sanā.

Remarks: The B2lt, IIB3lx, and IIC horizons were sampled for the Bureau of Public Roads. Horizons IIB3lx, IIB32x and IIC were wet when described. Other colors given are for moist condition.

Mineralogy (Nethod 7B): The mineralogy of the very fine sand is uniform throughout. Quartz and feldspar dominete. Thin, patchy clay films observed in the IIB31x and IIB32x horizons under a steroscopic microscope.

SOIL TYPE Stough LOCATION Clarke County, Mississippi fine loamy variant

SOIL NOS. S61M1ss-12-4 LAB. NOS. 15151-15157

	************	1.	Ma	PARTI	CLE-SIZ	E DISTRIB	UTION (in	mm.) (pt	r cent)	•••• •••••••••••••••••••••••••••••••••	130211=410044****	
DEPTH INCHES	HGRIZON	VERY COARSE SAND	CDARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY			2A2 > 2	TEXTURAL CLASS
		2-1	1-0.5		0. 25-0. 10		0.05-0.602	< 0.002	*****	0.02-0.302		
0-4	Al.	.0.1a	0.7ъ	_	56.0	14.2	22.2	4.0	57.2	12.4	-	fal/lf
4-11 11-18	A2 B21t	0.la	0.35		51.5 42.4	13.2 11.6	25.9 26.2	6.6 17.6	54.2 46.0	15.3 17.0	-	fsl fsl
	B22tx	0.5a	0.3b	2.0	40.9	9.4	25.5	21.1	43.3	16.2	_	scl
	B23gtx		0.58	2.5	42.4	10.5	23.3	19.8	43.1	15.4	-	fsl/sc
41-58	B24gtx	0.la	0.5a	2.2	40.2	10.4	20.6	26.0	41.1	13.9	-	scl
58-65	B3 x	≪0.1	0.3	2.1	41.9	10.2	17.0	28.5	41.0	11.2	-	scl
mmmmm Te		material in	nic Ma		} } } }		lk Densi	***************************************	***************************************	MOIST		NSIONS
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II2Go	RC1	o.c.	6pta	C/N	Field	Moist		cm.	A.D.	1/3 1	/3-to	15 ATMOS.
	1	d	<u>5</u>	•	5 M.	4Ala	433 6 M	MALC B/SC	B/CC.	Atmos. Pieces	15713	Sieve
616	6.1	1.2 6	0.054	23	14.0	g/ec 1.53	17.0	1.49			.09	2.9
4.8	3.8	0.09	0.007	-5			- (00		1		,,,,	2.0
4.6	3.4	0.10	0.016	ļ					_			6.5
4.7	3.3	0.05	0.015	i	14.4	1.76	18.0	1.71	1.80	14.8	.12	7.8
4.7	3.3	0.04			1 2 2	1 7	18.2	1.68	1 76	126	.08	7.0
4.8 4.6	3.1	0.04	İ		15.3	1.74	TO.5	1.00	7.10	13.6	.00	9.1
4.0	J.E	0.03		<u> </u> 			**************************************					
5 Ala			TABLE	CATIONS	7 7		Base	5A3a	503 Base	Sum Ext.		6CLs Free
CATION EXCHANGE CAPACITY		Ext.	Bases	 	6H).e	1	Sat. %	Bect.	1111	Bases	Ca/Mg	
NH14OAC	6 362b	602	6P2a	602a 1003. soi	H	A1	Exch.	Cations		and Al	, , -	(Fe ₂ 0 ₃
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1.9	0.1	0.2	<0.1	<0.1	2.3	0.7	1.6	2.6	12	1.0	ŀ	0.3
6.6	0.3	0.4	<0.1	0.1		3.6	12	7.5	11	4.4	ļ	0.9
7.9	Ø.1	0.9	∞.1	0.1	8.4	5.0	13	9.4	11	6.0		1.0
7.2	<0.1 <0.1	0.6	<0.1 <0.1	0.1	7.7	4.4	10	8.4 11.8	8 7	5.1 7.6		1.2
10.0	Ø.1	0.7	<0.1 <0.1		12.4	7.8	ıı	13.6	9	9.0	1	2.5
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ъ.	Few Fe	/Mn7-b	earing	aggre	gates.	•	i	İ	İ			1
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Soil Type: Stough fine loamy variant Soil Nos.: S61Miss-12-4

Iocation: Clarke County, Mississippi, one mile west and mile northwest of Shubuta. 300 feet east and 300 feet south of northwest corner of SW 1/4 SW 1/4, Sec. 5, Thom, NYW.

Vegetation and Use: Carpetgrass pasture.

Slope and Land Form: Mearly level (1 percent slope).

Designed and Permandility: Somewhat moorly drained with allow mooff and allow internal drainage.

Parent Material: Coastal Flain terrace.

Collected by: J. S. Allen and Dean C. McMurtry, Jr., May 16, 1961. Described by: R. C. Glenn and R. C. Carter, May 16, 1961.

Horizon and Idncoln Lab. No.

0 to 4 inches. Very dark gray (10YR 3/1) fine sandy loam; weak fine and medium granular structure; very friable; common fine roots; few fine soft black and brown concretions; some mixing of A2 in lower 15151 I inch of horizon in root and wormholes; abrupt smooth boundary.

4 to 11 inches. Fale clive (5Y 6/3) fine sandy loam; weak fine and medium granular structure; very friable; few fine roots; some mixing of Al in root and wormholes; few fine brown and black concretions 15152 clear smooth boundary.

11 to 18 inches. Hight yellowish brown (2.5Y 6/4) heavy sandy loam with many fine distinct and faint yellowish brown (10YR 5/6) and pale olive (5Y 6/3) mottles; weak fine and medium subangular blocky structure; friable; few fine roots; few fine and medium brown and black concretions; clear smooth boundary. B21t 15153

18 to 31 inches. Mottled light gray (2.5Y 7/2) yellowish brown (10YR 5/6) and light yellowish brown (2.5Y 6/4) light sandy clay loam; mottles are many fine distinct; weak medium and coarse subangular and B22tx 15154 angular blocky structure; friable; common fine and medium brown and black concretions; few fine voids; few vertical cracks & to 1 inch wide filled with light gray (2.5Y 7/2) sandy loam; gradual smooth boundary.

31 to 41 inches. Mottled light gray to gray (10YR 6/1) yellowish brown (10YR 5/6) and light yellowish B23gtx 15155 brown (2.5Y 6/4) sandy clay loam; mottles are many fine and medium, faint and distinct; weak medium and coarse subangular and angular blocky structure; friable; common fine to coarse brown and black concretions; few fine voids; common vertical seams linch wide filled with light gray (2.5Y 7/2) sandy loam; gradual smooth boundary.

B24gtx 41 to 58 inches. Mottled yellowish brown (10YR 5/6) light gray to gray (10YR 6/1) and strong brown (7.5YR 15156 5/6) sandy clay losm; mottles are many fine and medium, faint and distinct; weak coarse angular blocky structure; friable; common fine to coarse brown, red, and black concretions; few fine voids; patchy clay films in cracks; common vertical seems filled with light gray (2.5Y 7/2) sandy loam; diffuse wavy boundary.

PO AN EQUIPMENT SELECTED PROPERTY S. P. PROPERTY WITH THE PARTY

SOIL	SURVEY LABORATORY	Lincoln, Nebr.	March 1959
SOIL	TYPE Sunter LC	OCATION	County, Mississippi

SOIL NOS.

8581644-13-1 LAB. NOS. 9752-9757

		1Bla		PARTI	CL E-SIZ	E DISTRIB	ution (in	mm.) (pa	* 6011,	_3A1		.]
DEPTH INCHES	HORIZON	VERY COARSE	COAPSE	MEDIUM	FINE	VERY FINE					2 A 2	TEXTURA CLASS
		SAND	SAND	SAND	SANÖ	SAND	SILT	CLAY			> 2	
		2.1	1-0.5	0,5-0.25	0, 25-0, 10	0.10-0.05	0.05-0.002	< 0.007	0,2-0.02	402-4002		
0-5}	Ago	2.2		1.3b			41.8	41.4				sic
5}-9} ,	GT	0.28		0.56	4.70			44.3				sic
99-109 84-22	C2	0.2a	1					53.6 56.4			-	C
22-34	C4	0.15		0.4a	4.1b			57.2	13.4	27.5		e
34-54	C5	0.2	0.44	0.4e	4.10	6.50	33-7	54.7	16.8	26.5	-	a
H errich (18	pH)	emakani ORG/	NIC MA	TTER	6Cla	ELECTRI-	6Ela	4011110041111111	MOIS	URE T	CHSIONS
3Cla		*****	6Ala	6Bla		Free	CAL CONDUC-		GYPSUM			482
	1,5	1:10	ORGANIC CARBON	MITRO-	C/N	Iron	EC-103 MILLIMHOS	equiv-	me./190g.	1/10 ATMOS.	1/3 ATMOS.	75 ATMOS
. 10						Fe203%	PER CM 925-C.	*		5		- 3
7.6				0.133		1.5		55 61				14.
7.8	,			0.058		1.4		61		ŧ	Í	15. 18.
7.8 7.7				0.035		2.2 2.0	Ī	53 5 6		ĺ	•	20.
7.7	ŧ.			0.023		1.2		59	l i) +	ļ	20.0
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CATION ICHANGE APACITY	~ * * * * * * *	602ъ	бна	6P2a	602s	SAT.	7	1		1		MOISTU
APACITY	c.	*	н	No	K	EXCH.	į	å ₹		i †		SATU- RATIO
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19.4]	0.1	40.1	0.1	0.4			}	į		1	
20.0		0.2	40.1	0.1	0.5		<u> </u>					
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Soil Type: Suster silty clay

Soil Nos.: S50Miss-13-1 Location: Hortheast quarter of the northwest quarter, Sec. 14, T2ON, R7E; Clay County. Elevation: Approximately 400 feet.

Use: Hay meadow.

Relief: Gently sloping, 3 percent. Drainage: Moderately well drained. Parent Material: Selma Chalk.

Ground Water: None.

Moisture: Soil was moist when sampled. Root Distribution: Roots to 18½ inches and very few below.

Collected by: R. R. Covell, M. C. Garber, L. C. Murphree and R. C. Carter, November 17, 1958.

Described by: R. C. Carter.

Horizon and Lincoln Lab. No.

O to 5½ inches. Olive (5Y 5/3) silty clay; old worm and root channels filled with pale yellow (5Y 7/3) Ap 9752 silty clay; moderate fine to coarse graular structure; moist friable; sticky and plastic when wet; many fine grass roots; few fine lime nodules; moderately alkaline; abrupt, wavy boundary.

5½ to 9½ inches. Fale yellow (2.5Y 7/4) with many fine, faint mottles of white (2.5Y 8/0), silty clay; 9753 white color due to soft lime nodules; weak medium subangular blocky breaking down into moderate fine to coarse granular structure; moist, friable; sticky and plastic when wet; few fine grass roots; few fine lime nodules and dark brown concretions; moderately alkaline; clear wavy boundary.

9½ to 18½ inches. Pale yellow (2.5Y 7/4 with many fine distinct mottles of light gray (5Y 7/1) reddish yellow (7.5YR 6/8) and white (2.5Y 8/0) silty clay; weak medium subangular blocky breaking down into moderate fine to coarse granular structure; moist friable; sticky and plastic when wet; few thin dis-©2 9754 continuous clay skins on ped faces; few fine grass roots; common fine soft lime nodules; moderately alkaline; clear irregular boundary.

18½ to 22 inches. Light gray (5Y 7/2) with few fine distinct mottles of pale yellow (2.5Y 7/4) and brownish yellow (10YR 6/8) silty clay; irregular rectangular peds; pieces of soft marl with silty clay ¢3 9755 between peds; moist firm; sticky and plastic when wet; very few fine roots; common fine soft lime nodules; few fine dark brown concretions; moderately alkaline; clear irregular boundary.

22 to 34 inches. Mottled pale yellow (5Y 7/3) and brownish yellow (10YR 6/8) soft marl which is hard 9756 when dry; structureless; breaks into soft pieces of marl which are rectangular shaped and about two inches across; moist, extremely firm; few fine grass roots between peds; strongly alkaline.

34 to 54 inches. Description same as for horizon C4. Horizon divided due to thickness. Sample taken 9757 with bucket auger.

Colors given are for moist condition.

	SOIL	SURV	EY LAB	ORATORY	Lincoln	Nebr.	Marg	1959	
	OIL	TYPE.	Sumter silty cla	LC	DCATION	Monroe	County, Mi	ssissippi	
								• • • • • •	
	SOIL	nos.	-	isa-18-6			9758-9764	,	•
	DEPTH INCHES		ERY IARSE COARSE AND SAND	PARTICLE-SIZE MEDIUM FINE SAND SAND 0.5-0.25-0.10	VERY FINE SAND SILT	CLAY		2A2 TEXTURAL CLASS	retenden er de tended.
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<u>- 4 y. 16</u>	,								

Lagrangia

Use: Hay meadow.

Relief: Gently sloping 3 percent. Drainage: Moderately well drained. Parent Material: Selma chalk. Ground Water: None.

Moisture: Soil was moist when sampled. Root Distribution: Roots to 14 inches and very few below.

Collected by: R. R. Covell, M. C. Garber, L. C. Murphree, and R. C. Carter, November 17, 1958. Described by: R. C. Carter.

Horison and Lincoln Lab. No.

0 to 5 inches. Olive (5Y 5/3) silty clay; old root and worm channels filled with pale yellow (5Y 7/4) Ар 9758 silty clay; moderate fine to coarse granular structure; moist friable; sticky and plastic when wet; many fine grass roots; few fine dark brown concretions; moderately alkaline; clear smooth boundary.

5 to 9 inches. Pale yellow (5Y 7/4) silty clay; old worm and root channels filled with olive (5Y 5/3) silty clay from Ap horizon; weak to moderate medium subangular blocky breaking down into moderate fine AC 9759 granular structure; moist friable; sticky and plastic when wet; many fine grass roots; few fine lime nodules; moderately alkaline; clear smooth boundary.

01 9760 9 to 14 inches. Fale yellow (5Y 7/4) with common fine distinct mottles of brownish yellow (10YR 6/8) and light clive gray (5Y 6/2) silty clay; weak to moderate medium subangular blocky breaking down into moderate fine granular structure; few thin discontinuous clay skins in ped faces; moist friable; plastic and sticky when wet; few fine grass roots; few fine soft lime nodules and dark brown concretions; moderately alkaline; clear wavy boundary.

14 to 22 inches. Nottled light olive gray (5Y 6/2) and pale yellow (5Y 7/4) with many fine faint mottles of light gray (5Y 7/2) silty clay to clay; weak medium subangular blocky structure; moist friable; sticky and plastic when wet; very few fine grass roots; common fine soft lime nodules; moderately alkaline; 9761 abrupt smooth boundary.

22 to 27 inches. Mottled gray (5Y 6/1) and pale yellow (5Y 7/4) with few fine distinct mottles of yellow (2.5Y 7/8) mixed silty clay to clay and soft marl; weak medium subangular blocky structure; moist C3 9762 firm; sticky and plastic when wet; common fine soft lime nodules; moderately alkaline; clear smooth boundary.

27 to 36 inches. Gray (5Y 6/1) soft marl; which is hard when dry; ped interiors are pale olive (5Y 6/3); 9763 structureless breaks into soft pieces of marl which are rectangular shaped and about 2 inches across; these peds break out in plates; moist extremely firm; no roots; few fine dark concretions; strongly alkaline.

36 to 42 inches. Description same as for horizon C4. Horizon divided due to thickness. Sample taken C5 9764 with bucket auger.

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RVEY LABORATORY Lincoln, Netr. March 1959

SOIL NOS. S58MLss-51-2 LAB. NOS. 9765-9769

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DEPTH INCHES	HORIZON	VERY	COARSE	MEDIUM	FINE	VERY FINE					2A2	TEXTURA CLASS
1 0 - 110 - 1			•	SAND	SAHO	SAND	SILT	CLAY			> 2	
		2-1	1-0.5	9.5-0.25	0. 25-0. 10	0.10-0.05	0.05-0.002	< 0.002	0. 2-0.02	002-0002		:
0-5	Ap	2.0a	3.2a	2.8a	4.3a	5.8a	42.0	39.9	27.4	22.4	Tr.	sicl-
5-12	AC	0.28	0.8a	0.8a	1.9	3.2a	29.8	63.3	14.4		-	C
12-20	CI	0.5b	0.80		6.0c	8.5c	50.4	32.9			-	sicl
20-35	C2	1.20	1.2b 0.8b		8.0e	9.0c 8.6c	52.3 40.0	27.0 43.2	30.6 21.5	35.2 30.4	-	sic-c
35-50	¢3	0.96	0.00	0.8c	5 . 7c	0.00	40.0	7306	E4.07	3044	-	, 510-C
**************	ρH	**************	ORG	NIC MA	TTER	6cla	ELECTRI-	6Ela	5/06 (0)94 1/11-1		TURE T	NSIONS
Cla			6Ala	6Bla		Free	CAL CONDUC-	CaCOs	GYPSUM			4B2
	1,5	1:10	ORGANIC CARBON	NITRO-	C/N	Iron	TIVITY EC = 103 MILLIMHOS	aguiv-	me./100g.	1/10 ATMOS.	ATMOS.	ATMOS.
1:1		****	*	*		Fe ₂ 03%	PER CM	*		%	5	%
7•7			2.40	0.192	12	2.8	-	10				18.2
7.5			0.96	0.077	12	3.2		3			1	28.9
7.8			0.41	0.039	10	1.2		3 59 69	į			14.7
7.7			0.14	0.013		0.8		69 54	i		•	11.7
7.6		•	0.12			1.0		74			±	18.1
	6050:005PF3h.*+ .+	EXTRAC	TABLE	CATIONS	5R1a	BASE	7 1 2 2 2 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	‡ ************************************		 	1 2 2 2 4 4 4 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	***************************************
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Soil Type: Sumter clay
Soil Nos.; 858Miss-51-2
Location: 6 miles south of Lawrence; northwest quarter of northwest quarter, Sec. 26, T5N, RLOE - Photo No. AVC-ZG-

212 - Newton County. Elevation: Approximately 350 feet. Use: Permanent native pasture.

Relief: Moderately sloping, 6 percent. Drainage: Moderately well drained.

Parent Material: Marly clay. Ground Water: None.

Moisture: Soil was moist when sampled.

Root Distribution: Many roots to 12 inches. Collected by: H. L. Real, C. H. Whittington and R. C. Carter, November 26, 1958. Described by: R. C. Carter.

Horizon and Mancoln lab. No.

O to 5 inches. Very dark grayish brown (10YR 3/2) clay; moderate, medium subangular blocky and granular structure; moist friable; sticky and plastic when wet. Many fine grass roots; common, fine lime nodulas and gravel concretions; moderately alkaline; clear, smooth boundary. Ар 9765

5 to 12 inches. Ident olive brown (2.5% 5/4) clay; old worm and root channels filled with very dark grayish brown (10% 3/2) clay from Ap horizon; moderate, medium subangular blocky structure; moist, friable to firm; plastic and sticky when wet; clay skins on ped faces; many fine grass roots; common fine dark brown concretions; moderately alkaline; clear, wavy boundary. light olive brown (2.5Y 5/4) dlay; old worm and root channels filled with very dark 9766

12 to 20 inches. Nottled light gray (2.5Y 7/2) light olive brown (2.5Y 5/4) and yellow (10YR 7/8) silty clay to silty clay loam; weak medium subangular blocky structure; moist friable; plastic and sticky when wet; few fine grass roots; many medium and coarse soft lime nodules; few fine dark brown concretions; moderately alkaline; clear irregular boundary. CL 9767

20 to 35 inches. Nottled light gray (2.5Y 7/2) dark grayish brown (2.5Y 4/2) and yellow (10YR 7/8) soft marly clay; which is slightly hard when dry; dark grayish brown color is in old root channels; peds break out into rectangular pieces which break down into weak medium subangular blocky structure; moist, ce 9768 friable; sticky and plastic when wet; very few roots; few seashell fossils ranging from 2 to 6 inches in sise; many fine and medium lime nodules; strongly alkaline.

35 to 50 inches. Description same as for horizon C2. Horizon divided due to thickness. 03 9769

Colors given are for moist condition.

SOIL SURVEY LABORATORY Lincoln, Nebr. March 1959 SOIL TYPE Sunter LOCATION Menton County, Mississippi SOIL NOS. S58Mlas-51-3 LAB. NOS. 9770-9774

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DEPTH INCHES	HORIZON	VERY COARSE	COARSE		FINE	VERY					2A2	TEXTURAL CLASS
inches	JORIZON	ŞAND 2-1	\$AND 1-0.5	SAND	\$AILŌ	FINE SAND 0. 10-0.05	\$ILT 0.05-0.002	CLAY < 0.002	0, 2-0, 02	0.02-0.002	> 2	CEASS
)		
0-6 6-14 (AD AC		2.2a 2.2a		3.9a 3.6a		46.5 53.6		17.9 16.7	34.5 42.8	Tr.	sic-si sicl
14-26	GI.			0.74			56.5	33.6		46.8	-	sicl
26-38 38-50	c3 cs		0.6a 0.7a	0.4a			39.2 34.5	56.6 59.8	7.3 8.5	34.0 28.7	-	C
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	1,5	1:10	ORGANIC CARBON	NITRO- GEN	C'N	Iron	EC - 103	equiv-	SOIL	ATMOS.	ATMOS.	ATMOS.
			*	. *		Fe ₂ 0 ₃ %	PER CM	. 5			- 5	3
7.5			3.41	0.262	13	2.1	į	30			,.	21.5
7.8			1.45	0.178	12	1.4		49	İ			17.6
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APACITY NH _L Ac	Co	ed live quiv	H	No ICCg. vol	K >	EXCH.		! : !	: : : !			SATU- RATION
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Soil Type: Sumter clay Soil Nos.: 858Miss-51-3

Use: Permanent native pasture. Relief: Gently sloping, 3 percent. Drainage: Moderately well drained. Parent Material: Marly clay. Ground Water: None. Moisture: Soil was moist when sampled. Root Mistribution: Many roots to 14 inches. Collected by: H. L. Heal, C. H. Whittington and R. C. Carter, November 26, 1958. Described by: R. C. Carter. Horizon and Lincoln Lab. No. O to 6 inches. Very dark gray (10TR 3/1) clay; moderate fine subangular blocky and granular structure; moist, friable; sticky and plastic when wet; many fine grass roots; common fine lime nodules and dark brown concretions; moderately alkaline; clear, smooth boundary. Ap 9770 6 to 14 inches. Nottled dark grayish brown (2.5Y 4/2) and light yellowish brown (2.5Y 6/4) clay; moderate, fine subangular blocky and granular structure; moist friable; sticky and plastic when wet; few fine grass roots; many fine and medium lime nodules; moderately alkaline; clear, smooth boundary. 14 to 26 inches. Mottled yellow (2.5Y 7/6) light gray (2.5Y 7/2) and white (2.5Y 8/0) silty clay to silty clay loss; white color due to soft lime nodules; moist friable; sticky and plastic when wet; few roots; approximately 50 percent of this horizon is fine to medium soft lime nodules; few fine to medium dark brown concretions; moderately alkaline; clear wavy boundary. 9772

26 to 38 inches. Mottled yellow (2.57 7/6 and 10YR 7/8) light gray (2.57 7/2) and grayish brown (2.57 5/2) soft marly clay, which is slightly hard when dry; peds break out into rectangular pieces which break down into week, coarse angular and subangular blocky structure; moist friable; sticky and plastic

when wet; no roots; many fine and medium lime nodules; moderately alkaline.

38 to 50 inches. Description same as for horizon C2. Horizon divided due to thickness.

Colors given are for moist condition.

9773

C3 9774 SOIL SURVEY LABORATORY Lizcoln, Nebr. December 1958

SOIL TYPE Vaiden LOCATION Icundes County, Mississimi

SOIL NOS. S58.Hss-44-1 LAB. NOS. 8242-8247

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DEPTH INCHES	Homizon	VERY	COARSE SAND			VERY FINE					2A2	TEXTURAL CLASS
		2-1	1-0.5		a 25-a 10	\$AND 0.10-0.05	SILT 0.05-0.002	CLAY < 0.002	9. 2-0,02	0 02-0.092	> 2	
0-5	Αp	0.6а	0.6а	0.4a	1.0b	2.1b	41.9	53.4	20.5	24.0	Tr.	sic
5-14	B21t	0.2a	0.2a	0.25	0.36	1.2b	33.3	64.6	13.7	20.9	Tr.	c
14-23	B22t	0.la	0.2a	0.16	0.1ъ	1.1b	34.5	63.9	13.9	21.7	-	c
23-33	B23t	0.la					33.9	64.5	_	21.8	_	c
33-42	CJ	O.la		,	_ 7	1.06	33.2	65.2		20.9	-	c
42-65	<u> </u>	<u>Q.2</u> c	Q.2c	0.2c	0.40	1.lc	31.2.	<u>_66.7</u>	<u> 12.3</u>	20.2	2	<u>in</u>

Soil Type: Vaiden silty clay loam

Soil Nos.: 858Miss-44-1

Incation: 280 feet south and 330 feet west of northeast corner of the NW 1/4 of the NE 1/4 of Sec. 15, T17N, R17E. 280 feet south of county road to Trinity and 2 miles east of U. S. Highway 45. Photograph ND-8F-90.

Area; Lowndes County, Mississippi.

Use: Pasture.

Relief: Gently sloping.

Brainage: Somewhat poorly drained.

Parent Material: Marly clay.

Ground Water: Deep.

Moisture: Soil was moist when sampled.

Root Distribution: Good.

Collected by: J. S. Allen, K. W. Flach, and Y. H. Havens, May 21, 1958.

Described by: Y. H. Havens.

Horizon and Lincoln Lab. No.

8246

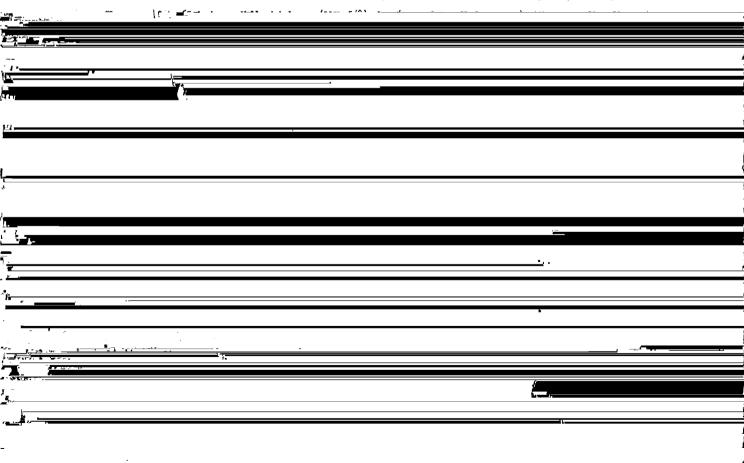
Ap 0 to 5 inches. Dark brown (10YR 4/3) to dark grayish brown (10YR 4/2) silty clay loam with few fine faint 11ght brownish gray (10YR 6/2) mottles; weak fine subangular blocky structure; friable when moist, plastic and sticky when wet; very hard when dry; numerous worm and root holes; abrupt smooth boundary.

B21t 5 to 14 inches. Mottled yellowish red (5YR 4/8 to 5/8) yellowish brown (10YR 5/8) and light gray (2.5Y 7/2) silty clay; moderate fine and medium subangular and angular blocky structure; firm when moist, very plastic, very sticky when wet; many fine roots, many worm and root holes; clear smooth boundary.

B22t 14 to 23 inches. Mottled gray (10YR 6/1) yellowish brown (10YR 5/8) and yellowish red (5YR 5/8) silty clay; moderate to strong fine and medium angular blocky and subangular blocky structure; friable when moist, very plastic and very sticky when wet; numerous fine roots; clear smooth boundary.

123t 23 to 33 inches. Mottled gray (10YR 6/1) strong brown (7.5YR 5/8) and red (2.5YR 5/8) clay; moderate to strong fine to coarse angular blocky and subangular blocky structure; few scattered slickensides; friable when moist, very plastic and very sticky when wet; few fine roots; clear smooth boundary.

33 to 42 inches. Mottled gray (10YR 6/1) and strong brown (7.5YR 5/8) clay; many large slickensides, medium and coarse blocks formed by slickensides breaking into very fine and fine angular blocky peds; friable when moist, very plastic and very sticky when wet; few fine roots; abrupt wavy boundary.



OIL TYPE Vaiden LOCATION Lowndes County, Mississippi silty clay loam

SOIL NOS.

S581186-44-2 LAB. NOS. 8248-8251

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DEPTM INCHES	HORIZON	LB VERY COAKSE SAND	CPARSE SAHD	MEDIL'Y SAND		VERY FINE SAND	SILT	CLAY	4 6634)	3A1	2A2 > ≥	TEXTURAL CLASS
	i *	2.1	1-0,5 0.7e.	0.5-0.75	,	0.10-0.05 2.4b	0.05.0.002 36.2	< 0.002	0.2-3.02 20.9			i c
0-3 3-14 14-21	Ap B22t B22t	<0.1	0.7a 0.2a 0.2a	0.2a	0.35		29.3 30.6	68.5	13.1	17.8 19.5	2	c
21-38	C	;	0.9c			1.2c	31.6	63.6	12.9	20.3	5	c
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8cla	eH			NIC MA		Free Iron		6Ela	BULK D 4Ala		WATER 4B4	4B2
COLLA	1:5	1:10	ORGANIC CARBON	NITRO-	C/N	Fe ₂ 0 ₃ %	7644	CaCO3 equiv- alent	Field State	o. D.	Field State	15
<u>!d</u>				3		.6сда		*	g/cc 1.46		% 25	18.3
4.8 4.5	1			0.124		2.8			1.40	3 2'	25 39	25.1
6.9 7.6	1		0.22	0.010		2.9 2.7	1	ď	1.26 1.40		36 14	24.3
7.0			0.20	0.010			renaria esperaria proprio de la constanta de l					
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Soil Type: Vaiden silty clay loam Soil Nos.: S58Miss-44-2

Location: 538 feet east and 552 feet north of the Southwest corner of the SW 1/4 of the SW 1/4 of Sec. 5, TISN, ROTE.

One mile south of Motley Creek and 7 miles west of Columbus. Hotograph ND-7F-70.

Area: Lowndes County, Mississippi.

Use: Pasture.

Relief: Nearly level.

Brainage: Somewhat poorly drained.

Parent Material: Marly clays.

Ground Water: Deep.

Moisture: Soil was moist when sampled.

Root Distribution: Good in upper 21 inches.

Collected by: J. S. Allen, K. W. Flach, and Y. H. Havens, May 21, 1958. Described by: Y. H. Havens.

Horizon and

Tincoln Tab. No.

O to 3 inches. Dark brown (10YR 4/3) to dark yellowish brown (10YR 4/4) heavy silty clay loam; weak fine and very fine subangular blocky and moderate fine granular structure; friable when moist, plastic and sticky when wet; many worm and root holes, many fine roots; abrupt smooth boundary. Ap Rolas

3 to 14 inches. Mottled strong brown (7.5YR 5/8) and gray (10YR 6/1) silty clay; moderate very fine to fine angular blocky and subangular blocky structure; friable when moist, very sticky and very plastic when wet; many worm and root holes filled with dark yellowish brown (10YR 4/4) silty clay; clear B21t 8249 irregular boundary.

14 to 21 inches. Light clive brown (2.5Y 5/4) silty clay with many fine distinct and prominent gray (10YR 6/1) and strong brown (7.5YR 5/8) mottles; moderate very fine to medium angular blocky and subangular blocky structure; friable when moist, very sticky and very plastic when wet; few lime concretions; many root and worm channels; weak slickensides break into very fine and fine angular blocky P024: 8250 peds: clear irregular boundary.

21 to 38 inches. Light clive brown (2.5Y 5/6) clay; large slickensides break into fine and very fine weak to moderate angular blocky structure; friable when moist, very plastic and sticky when wet; many lime nodules; few fine roots; clive gray (5Y 4/2) faces on slickesides and in pockets; clive gray clay 8251 appears as irregular boundary at lower part of C horizon.

Remarks: The marly clay boundary is abrupt and irregular; depth to carbonate ranges from 11 to 50 inches in the sampling pit.

Consistency of soil very hard when dry.

The Rolt and C horizons were sampled for the Bureau of Public Roads.

SOIL	SURVEY	LABORATORY	Lincoln,	Nebr.	December	1958

SOIL TYPE Veiden LOCATION Nonroe County, Mississippi silt loam (deep phase)

SOIL NOS. 858Mas-49-3 LAB. NOS. 8252-8259

1005037400 jda *4449 38	***************************************	1 <u>R</u>	la 	PARI			UTION (in			3A1	**************************************	
DEPTH INCHES	HORIZON	VERY COARSE SAME	CÓARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	GLAY			2A2 > 2	TEXTURA CLASS
	•	2-1	1-0.5	0.5-0.25	4.25-9,10	0.10-0.05	0.05 0.002	< 0.002	0.2-0.07	Q.)2-QC02		L
0-4	۸	1 20	1.7a	1.la	2.5ъ	1.4b	68.4	23.6	32.0	39.0		sil
- :	Ap			0.Ga	1.86		58.4	35.8	27.0	33.4		Bicl
4-6	A3B1.		1.4a		1	1.05					-	
6-12	B21t		0.4a	0.4a	1.0b	0.86	45.1	52.2	18.7	27.8	_	sic
12-19	B22tg		0,4a	0.3a	0.45	1.2b	44.0	53.6	17.9		Tr.	Bic
L9-35	B23tg		0.6a	0.3a	0.36	1.05	14.3	53.3	17.3	28.0	-	sic
35-49	CT.	1	0.4a	0.3a	0.4b	0.80	38.9	59.0	15.3	24.5	-	C
49-58	C2	O.la	0.2a	0.2a	0.4b	0.96	38.2	60.0	14.1	25.1	-	je.
58-67+	C3	0.5c	0.60	0.3c	0.5c	0.6e	39.6	57.9	14.9	25.4	Tr.	2
********	pH	10049945 SÕESEPS175	COC.	MIC MA	······································		*************	6Ela	RIIK I	ensity	WATTER	RETEN
8cla	Ţ- Ÿ :'	r !	6Ala	6Bla		Free			4Ala	4Alh		4B2
اهساب			-			Iron		CoCO ₃	Field	0. D.	Field	
	1:5	1:10	CARBON CARBON	NITRO-	C/N	Fe ₂ 0 ₃ %			riela State	O.D.	State	
• •	1 "		% <u>d</u>		- , .			%		-/		
1:1						601a	•••••		8/66	<u> </u>	%,	<u>, ., %</u>
5.3		1		0.153	15 12	1.9			1.30	1.37	4	10.2
5.0]	. 1		0.053		2.2			1.32	1.48	14	13.4
4.6			0.43	0.033	13	2.7			1.30	1.62	23	20.2
4.6]]	1	0.23	0.019		2.7			1.35	1.7	22	20.3
4.7]]		0.14	0.013		2.4			1.40	1.78	30	20.7
4.8	1		0.14			2.8			1.42	1.75	23	22.1
5.2			0.18			2.9			1.46	1.72	17	21,2
7.6	1		0.12			3.2		4		<u> </u>		20.8
,											ŀ	
5Ala		***		CATIONS		BASE SAT.	503	530a	5A3a	Ca/Mg	15496151109000101	
CATION	6N2b	602n	6Hla	6P2a	692a		Bese	Sum	Stun			ŧ
XCHANGE APACITY	Ca	Ma .	н	No	K	NH4A3 EXCH		Bases	Cation	s e		
NH _l ,Ac				100		ł	On Sum				I	ļ
		Williadriad	z:eras per	100g. soi			ations.					ļ
18.2	10.2	1.9	11.6	∞.1	0.2	68	51	12.3	23.9	5.4		•
20.4	12.3	1.3	12.1		0.2	68	53	13.8	25.9	9.5	l I	1
29.5	11.0	1.5	25.6	0.1	0.3	1414	34	12.9	38.5	7.3		
30.2	6.8	0.7	29.5	0.2	0.3	26	21	8.0	37.5]
31.6	10.5	1.0	26.5	0.5	0.3		32	12.3	38.8	10.5		i
35.5	20.7	1.7	19.0	0.9	0.4	39 67	56	23.7	42.7			1
		2.2	8.6	1.2	0.4	98	80	35.0	43.6			
35•7 36•4	31.2	2.4	0.0	1.4	0.4	70		ر کارو	-J.U			1
30.4		4. 4				;						
a.	Many	smooth	light	brown	to bl	ack con	er. (Fe-	Ma)				1
ъ.	Common	влос	th lie	ht bro	m to	black c	pner. (E	e-Mn	İ	['
				r 	l		;			ŧ i	. سا	مملا
c.	Commor	smod	th lie	ht bro	wn to	black c	þner. (E	e-Mn	ALBO	, com	on, c	#UU3

Soil Type: Waiden silt loam (deep phase)

Soil Nos.: S58Miss-48-3
Location: 300 feet north and 560 feet west of the southeast corner of SE 1/4 of the SW 1/4 of Sec. 33, T15S, Ros.

0.2 mile west of Highway 45W at Mildon and 300 feet north of local road. Photograph NG-3F-175.

Area: Monroe County, Mississippi. Use: Open pasture with scattered trees.

Relief: Nearly level.

Drainage: Somewhat poorly drained.

Parent Material: Marly clays.

Ground Water: Deep. Moisture: Soil was moist when sampled.

Root Mistribution: Good.
Collected by: J. S. Allen, K. W. Flach, and Y. H. Havens, May 22, 1958.
Described by: Y. H. Havens.

Horizon and Lincoln Lab. No.

O to 4 inches. Dark grayish brown (10YR 4/2) silt loss with many fine faint and distinct light brownish Ap 8252 gray (2.5Y 6/2) and strong brown (7.5YR 5/8) mottles; moderate fine granular, weak very fine and fine subsequiar blocky structure; friable when moist, slightly plastic when wet; many root and worm channels filled with very pale brown (10YR 7/4) and gray (10YR 6/1) silt loam; many fine roots, some partially decayed organic matter; few small manganese concretions; abrupt smooth boundary.

4 to 6 inches. Mottled brownish yellow (10YR 6/8) pale brown (10YR 6/3) and some yellowish red (5YR 5/8) 8253 silt loam; weak fine and medium subangular blocky and moderate fine granular structure; friable when moist, slightly plastic, slightly sticky when wet; numerous roots, abrupt smooth boundary. This horizon is a mixture of A and B.

6 to 12 inches. Mottled red (2.5YR 4/8) pale brown (10YR 6/3) and gray (10YR 6/1) silty clay; mottles R21t are many, fine and medium, and prominent; moderate to strong very fine to medium angular blocky and sub-angular blocky structure; friable when moist, very plastic and sticky when wet; few coarse roots; numerous 8254 fine roots; clear smooth boundary.

12 to 19 inches. Mottled gray (10YR 6/1) red (2.5YR 4/8) and strong brown (7.5YR 5/8) silty clay or clay; moderate very fine to medium subangular and angular blocky structure; friable when moist, very plastic and very sticky when wet; few coarse roots, root channels filled with light gray (10YR 7/2) E22tg 8255 silty clay; numerous fine roots; gradual wavy boundary.

19 to 35 inches. Gray (5Y 6/1) clay with many fine and medium prominent strong brown (7.5YR 5/8) and few yellowish red (5YR 4/8) mottles; moderate very fine to medium subangular and angular blocky structure; friable when moist, very sticky, very plastic when wet; few small weak slickensides; numerous fine roots; 1223tg 8256 clear wavy boundary.

35 to 49 inches. Mottled yellowish brown (10YR 5/8) and gray (10YR 6/1) clay; many slickensides which CI. 8257 break into moderate very fine to medium angular and subangular blocky structures; friable to firm when moist, very sticky and very plastic when wet; many small manganese concretions; root channels filled with

49 to 58 inches. Brownish yellow (10YR 6/6) to yellowish brown (10YR 5/8) clay with common fine and medium prominent gray (2.5Y 6/0) mottles, coatings on faces are gray (5Y 6/1) large slickensides break C2 8258 into moderate very fine to medium angular and subangular blocky peds; many fine manganese concretions and coatings in lower part of horizon; few manganese concretions and coatings throughout horizon; few fine roots; gradual wavy boundary.

58 to 67 inches plus. Brownish yellow (10YR 6/6) clay with many fine faint and prominent yellowish brown (10YR 5/8) light brownish gray (2.5Y 6/2) mottles; large slickensides break to moderate very fine to C3 8259 medium angular and subangular blocky peds; friable when moist, very plastic, very sticky when wet; many

SOIL SURVEY LABORATORY Lincoln, Nebr. December 1958

SOIL TYPE Vaiden LOCATION Nonroe County, Mississippi silt loam (deep phase)

SOIL NOS. S58Miss-48-4 LAB. NOS. 8260-8268

	1	lx	ls	PARTI	CLE-SIZ	E DISTRIE	UTION (in	unir) (Be	r cene)	3	A1	į
DEPTH INCHES	HORIZON	VERY COARSE SAND	COARSE SAND	MEDIUM SAND	FINE SAND	VERY FINE SAND	SILT	CLAY	!		2A2	TEXTURAL CLASS
	•	2.5	1.0.5	0.5-0.25	G. ?5-O. 10	0.10-6.05	0.05/0.002	< 0.002	0.2-0.03	002-0002		ļ
0-1	Al.	1.6a	1.la	1.2a	2.2a	3.0a	72.7	18.2	40.2	36.2	-	sil
1-3	A2	0.6a	1.2a	1.la	1.5a	4.3a	71.3	20.0	39.3	36.4	-	sil
3-8	B21t	0.2a	0.6a	0.7a	0.9a	2.6a	54.0	41.0	26.2	30.4	-	sic
8 -13	B22t	0.la	0.5a	0.5a	0.8a	2.6a	50.7	44.8	25.4	27.9	-	sic
L3-27	B23t	0.3a	0.5a	0.6a	0.8a	2.3a	48.7	46.8	23.6	27.4	-	sic
27-43	B31t	0.6a	0.6a	0.5a	0.7a	2.0a	45.0	50.6	20.3	26.7	Tr.	sic
43-5 4	B32t	0.4a	0.5a	0.5a	0.8a	2.0a	45.4	50.4	20.7	26.8	Tr.	sic
54-62	ci	0.5a	0.4a	0.6a	0.9a	1.8a	46.8	49.0	21.5	27.3	Tr.	sic

Soil Type: Vaiden silt loam (deep phase)

Soil Nos.: S58Miss-48-4

Location: 495 feet south and 100 feet west of northeast corner of the NE 1/4 of the SW 1/4 of Sec. 4, T14S, RSE. 2.5 miles east of the Chickasaw County line at Egypt and 800 feet north of local road. Photograph NG-

Area: Monroe County, Mississippi.

Use: Open pasture.

Relief: Nearly level.

Drainage: Somewhat poorly drained. Parent Material: Marly clays.

Ground Water: Deep.

Moisture: Soil was moist when sampled.

Root Mistribution: Good.

Collected by: J. S. Allen, K. W. Flach, and Y. H. Havens, May 22, 1958. Described by: Y. H. Havens.

Horizon and Lincoln Lab. No.

0 to 1 inch. Dark gray (5Y 4/1) silt loam with few fine faint gray (5Y 5/1) mottles; weak fine subangular 8260 blocky and moderate fine granular structure; friable when moist, slightly plastic when wet; many fine roots, many brown and dark gray root stains, few root and worm channels; abrupt smooth boundary.

1 to 3 inches. Pale brown (10YR 6/3) silt loam with common medium faint grayish brown (2.5Y 5/2) mottles; 8261 weak fine subangular blocky and moderate fine granular structure; friable when moist, slightly plastic when wet; many fine roots and few coarse roots; abrupt wavy boundary.

E21t 3 to 8 inches. Mottled yellowish brown (10YR 5/8) to brownish yellow (10YR 6/8) to gray (10YR 6/1) and 8962 gray (5Y 6/1) silty clay loam; moderate fine and medium subangular blocky structure; friable when moist, plastic and sticky when wet; many old root and worm channels filled with gray (5Y 6/1) silt loam; many fine roots; clear wavy boundary.

8 to 13 inches. Mottled brownish yellow (10YR 6/8) yellowish brown (10YR 5/8) and light olive gray (5Y 6/2) and red (2.5YR 4/8) silty clay; moderate very fine to medium angular blocky and subangular blocky B22t 8263 structure; friable to firm when moist, very plastic and very sticky when wet; numerous fine roots, few coarse roots; clear smooth boundary.

13 to 27 inches. Nottled gray (5Y 6/1) yellowish brown (10YR 5/8) and brownish yellow (10YR 6/8) and yellowish red (5YR 4/8) and red (2.5YR 4/8) clay; mottles are many, fine and prominent; moderate very B23t fine to medium angular blocky and subangular blocky structure; friable when moist, very sticky, very plastic when wet; many fine roots, few coarse roots; clear wavy boundary.

27 to 43 inches. Mottled light olive brown (2.57 5/6) and gray (5Y 6/1) clay; moderate very fine to medium angular and subangular blocky structure; friable to firm when moist, very plastic and very sticky when wet; few thin slickensides; few fine roots and root channels; root channels filled with gray (5Y B31t 8265 6/1) clay; gradual wavy boundary.

332t 8266 43 to 54 inches. Mottled yellowish brown (10YR 5/8) to brownish yellow (10YR 6/8) to gray (5Y 6/1) clay; large slickensides break into moderate very fine to medium angular and subangular blocky peds; friable when moist, very sticky, very plastic when wet; few manganese concretions; faces on slickensides are light olive brown (2.5Y 5/6) with some gray; few fine roots; gradual wavy boundary.

54 to 62 inches. Mottled yellowish brown (10YR 5/8) to brownish yellow (10YR 6/8) clay with many coarse prominent light brownish gray (2.5Y 6/2) mottles; large slickensides break to moderate very fine to medium 8267 angular and subangular blocky peds; friable to firm when moist, very sticky, very plastic when wet; many fine manganese concretions and coatings in lower parts of horizons; few lime nodules; root channels filled with gray (LOYR 6/1) clay; few fine roots; gradual wavy boundary.

62 to 72 inches. Coarsely mottled brownish yellow (low 6/8) to yellowish brown (low 5/8) and light brownish gray $(2.5 \times 6/2)$ and clive gray $(5 \times 5/2)$ clay; large slickensides break to moderate very fine to 8268 medium angular and subangular blocky structure; friable when moist, very plastic, very sticky when wet; many lime nodules, many fine manganese concretions; few fine roots, root channels filled with gray (10YR 6/1) clay.

Remarks: The H2lt, H2lt, and C2 horizons were sampled for the Bureau of Fublic Roads. Consistency of soil very hard when dry. Scattered crayfish holes in area.

SCS-421 10-64 (Rev. 9-66)

SOIL Vaiden silty clay SOIL Nos. S55Miss-51-1 LOCATION Newton County, Mississippi

SOIL SURVEY LABORATORY Beltsville, Maryland

___LAB. Nos. __551111 - 551115

		1815						Size clas	a and parti	cle diamete	r (mm) 3/	1						
			Total					Sand		SH	R				382		rse fragme	nts 38i
Depth	Horizon	Sand	Silt	Clay	Very	Coarse	Medium	Fine	Very fine		int. III	int. II				2A2	١	١
(ln.)	rio (2011		ı		CORTER			(0.25-0.1)		0.05-0.02			(2-0.1)		Cm	> 2	2 - 19	19-76
(*****)		(,	(0 05 0.002)	((2-1)		l. orl =< 2:				0.002)	ļ	(,			Pct.	Pe 2	t. of Green
0-3	Ap	-	48.3	28.6	1.9	6.2	6.0	6.7	2.3	<u> </u>	26.1	27.3				tr.	 :	
3-6	BI		42.7	46.0		2.9	3.0	3.2	1.2		28.0	17.2				tr.		
6-19	B21t		34.5	59.0	0.5	1.6	1.8	2.0	0.9		22.9	13.4				tr.		
19-47	B22t	1 -	27,1	67.7	0.1	1.2	1.1	1.5	1.3		20.3	8.8				tr.		
47-60	B3t		30.4	52.2		3.9	2.3	3.9	1.3 4.8		23.0	14.6				-		
									-									
																		<u> </u>
	6Ala							Bulk densit	`	401	<u></u> '	Vater conte			4C1		рH	I
Depth	Organic	Nitrogen	C/N		Carbonete as CaCO _a	Ext. Iron		4Ale	4Alh	l		4B1c	482		l		8Clc	8C1a
(in.)	Carbon				as cacus			3s ber	Oven dry	COLE		⅓ bar	15 ber		WRĐ		(1:1)	(1:1)
	Pct.	Pct.			Pet.	Pct.	g/cc	g/cc	g/cc		Pet.	Pct,	Pot.		in/la		KCI	H ₂ Q
0-3	1.41																	4.9
3-6	0.82														l			4.4 4.3
6-19 19-47	0.42	<u> </u>	-		-		-			<u> </u>	-	<u> </u>		-	<u> </u>		⊹ —	4.3
47-60	0.20																	7.5
								1										
		Extractat	ble bases 5	61a		6Юа	<u> </u>	EC	681d				Ratios to el	7	803		Base sat	uration
Depth	6N2d	602b	6P2s	6Q2e		Ext.	5A3e	,	Ext.			CEC	Ext.	15-bar	Ca/Mg		503	5C1
(in)	معا	J. Mag	, Na	l ĸ	Pu-		3A38		AL_	j	L	SIMB	jrna	water_] ~~,	l	Sum_	NU. CA

Soil Type: Vaiden silty clay Soil No.: S55Miss-51-1

Location: Newton County, Mississippi, 1/4 mile west of cemetery and 175 feet north of gravel road between Sec, 22 and 27. R 10E, T 5N.
Collected by: L. C. Murphree, H. L. Neal

Horizon and Beltsville Lab. No.

Ap 551111

O to 3 inches. Dark grayish brown (10YR 4/2) friable silty clay containing a few grass roots; weak medium blocky structure; plastic when wet, hard when dry; abrupt smooth

boundary, strongly scid. 2 to 4 inches thick.

551112

3 to 6 inches. Grayish brown (10YR 5/2) very firm clay containing a few grass roots with many, medium, distinct dark yellowish brown (10YR $^4/4$) and light gray (10YR $^7/1$) mottles; moderate medium blocky structure; plastic when wet, very hard when dry; clear wavy boundary; strongly acid. 2 to 4 inches thick.

B01+ 551113

6 to 19 inches. Pale yellow (2.5% 8/4) very firm clay containing a few small tree roots and gravel with few, medium, faint yellowish red (5YR 5/6) and gray (10YR 6/1) mottles; moderate medium blocky structure; plastic when wet; very hard when dry; gradual wavy boundary; strongly acid. 12 to 15 inches thick.

ROOM 551114 19 to 47 inches. Light gray (10YR 7/2) very firm clay with many, fine, faint brownish yellow (10YR 6/6) mottles; moderate medium blocky structure; plastic when wet, very hard when dry; slightly acid. 20 to 30 inches thick.

B3t. 551115 47 to 60 inches. Light gray (10YR 7/2) very firm clay mottled with brownish yellow (10YR 6/6) mixed with partially weathered chalk.

Notes: Colors refer to moist soil.

SC8-421 10-64 (Rev. 9-66) U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

SOIL Vaiden silty clay SOIL Nos. SSTMiss-51-2 LOCATION Bewton County, Mississippi
SOIL SURVEY LABORATORY Beitsville, Maryland LAB. Nos. S5116 - 55119

	Ī	181b	Size class and particl			
		Total	Send	SHI	382	Coerse fragments 381
Depth (in.)	Horizon -	3end Sift Cley (< 0.002)	Very Coords (2-1) (1-0.5) (0.5-0.29) (0.25-0.1) (0.1-0.05)	0.05-0.02 (0.02- 0.002) (0.2-0.02) (2-0.1)	Com	2A2 > 2 2 - 19 19-76 Pot 76mm
0-4 4-18 18-46	Ap B21t B22t	45.6 48.4 22.9 76.1 25.8 73.2	0.6 1.6 1.2 1.6 1.0 0.1 0.2 0.2 0.3 0.2 0.1 0.2 0.1 0.3 0.3	30.5 17.1 16.8 6.6 19.1 7.0		

Soil Type: Vaiden silty clay
Soil No.: S55Miss-51-2
Location: Newton County, Mississippi, 1 1/4 miles south of Lawrence, Mississippi, approximately 50 feet

west of Mississippi Highway 505.

Horizon and Beltsville Lab. No.

551116

O to 4 inches. Dark grayish brown (10YR 4/2) friable silty clay containing a few grass roots; weak medium blocky structure; plastic when wet, hard when dry; abrupt smooth boundary; strongly acid. 2 to 4 inches thick.

boundary; strongly scid. 12 to 18 inches thick.

h to 18 inches. Brownigh vallow (10YR 6/6) were fire clay containing a few small tree

moderate medium blocky structure; plastic when wet, very hard when dry; clear wavy

B22t 551118 18 to 46 inches. Light gray (10YR 7/2) very firm clay with many, fine, faint brownish yellow (10YR 6/6) mottles; moderate medium blocky structure; slightly acid; 20 to 30 inches

B3t 551119 46 to 60 inches. Yellowish brown (10YR 5/4) very firm clay mottled with light gray (10YR 7/1) containing many iron concretions and lime nodules. This layer rests upon partially weathered chalk.

Notes: Colors refer to moist soil.

_نياب

gu<u>Viokabure silt loss</u>

Leflore County, Mississippi

LAB. Nos. _____56583_ - 56585 SOIL SURVEY LABORATORY ___Beltsville, Maryland Size class and particle di 1835 meter (mm) SAI 382 Coarse fragments 381 2A2 Very coerse (2-1) Silt Fine int. III Int. 🎞 Depth (in.) **≠** 2 2 - 19 | 19 - 76 (1-0.5) (0.5-0.25) (0.25-0.1) (0.1-0.05) (0.06-0.02 (0.02-0.002) (0.2-0.02 (2-0.05) (2-0.1)Pct. of ≤ 76mm Put 0-6 6-18 18-101 898 88.8 84.8 85.0 10.8 15.0 14.8 0.3 61.0 85.1 60.1 24.9 58.4 26.8 tr. tr. 6Ala Organic carbon 4D1 4C1 Mitrogen C/N 4410 481c 482 8C1= 4Alb 8Clc Ext. Hon as CaCO_a as Fe COLE 15 ber (1:1) in/in KCI H₂Q g/ec 0.79 0.41 0.23 0-6 6-18 18-40+ 0.105 0.059 0.042 5.0 5.4 6014 Ratios to clay 803 Base seturation Extractable bases 581s 6HLa 6N2d 602b 6P2e 6Q2+ Ext. 5C1 Depth (is.) SASa Sum cations Ext. Al CEC Sum Ext. Iron 15-ber water Ca/Mg Ca Mg No ĸ H₄ OAc Sem cations Pct. 4.8 4.6 4.0 2.1 | 0.2 2.6 | 0.3 2,9 | 0.1 0.4 4.8 4.8 5.0 12.3 12.5 12.2 61 62 0-6 6-18 18-40+ 0.2 59 Clay Fraction Analysis 7Alb-d Depth (in.) . CM. Mt. Mi. łat. Qtz. KI. ٧m. 7A2 let. - teterstratified layer, Qtz. - quartz, Ki. - Kaclinita Relative amounts: blank — not determined, dash — not detected, fr. — trace, x — small, xx — shoderate, xxx — abundant, xxxx — domi

Soil Type: Vicksburg silt loam

Soil No.: S56Miss-42-2
Location: Leflore County, Mississippi, 1/4 mile NW of Browning School and 1/4 mile N. of Columbus and Greenville railroad, on the W. Bank of an old bayou, Sec. 7, T 19N, R 2E, photo AVI-1F-17
Collected by and date: Walter E. Keenan, 5/23/56

Horizon and Beltsville Lab. No.

56585

0 to 6 inches. Yellowish brown (10YR 5/4), pale yellow (2.5Y 7/4), dry; very friable Ap

6 to 18 inches. Light yellowish brown (10YR 6/4), light yellowish brown (2.5% 6/4), dry; very friable silt loam; with some layers of very pale brown and white in the lower part; massive structure; strongly acid; boundary clear, smooth. C1 56584 18 to 40 inches. Yellowish brown (10YR 5/4), light yellowish brown (2.5Y 6/4), dry; friable silt loam, splotched or streaked with gray and yellow; with many dark brown stains and splotches in the lower part; a few small dark colored concretions; massive

structure; very strongly acid. Notes: Colors refer to moist soil unless otherwise stated.

SOIL	SURVEY	LABORATORY	Lincoln, Nebr.	December	1958
	~~:/ ***		mi +	*********************	1 mad - 1 miles - 1 miles

SOIL TYPE Wilcox LOCATION Noxubee County, Mississippi silt lown

SOIL NOS. S58Miss-52-2 LAB. NOS. 8222-8227

	1001-100-100	""""""""""""""""""""""""""""""""""""""	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		CL E-SiZ		JTION (in			. 10-101100-0000130	3A1	
			*				11111111		;-== <u>-</u>	i	ŽA2	1
DEPTH INCHES		VERY			ŧ	VERY Fills			Ĭ	•	CAZ.	TEXTUR
NCHES	HORIZON	SAND	COARSE	MEDIUM SAND	FINE	SAND	SILT	CLAY	!		> 2	CLASS
										İ		ļ
		2.1	1-0.5		0. 25-0. 10	0,10-0.05	0.05-0.002		:	0.03-0.002		
)4	Aр	2.5a	3.3b	1.8b	2.8c	1.2c	52.3	36.1	18.9	36.0	Tr.	sicl
-11	B21t	1.2a	1.9b	1.16	1.8c	0.8c	47.3	45.9	14.1	34.9		sic
1-16	B22t		1.7b	1.2b	1.8c	0.8e	44.2	48.6	13.3	32.6		sic
-36	B23tg		1.3b	0,86	1.4c	0.6c	41.1	53.7	11.8	30.6	_	sic
5-56			1.4b	0.86	1,3c	0.6c	39.1	55.4	10.1	30.3		c
-72	B3g	- ;	0.26	0.1b	0.5ъ	0.6b	9.9	88.7	1.3	9.5	-	c
/- ,	R			,,,			,,,					
		0494444888M+233		N'C MA	TTER	Free	**************************************		_	NSITY		
8Cla			6Ala	6Bla		Iron		CeCO ₃	4Ala	·	4.B4	432
			ORGANIC	NITRO-		Fe ₂ 03%		equiv-		0. D.F	ield	15
	1:5	7:30	CARBON	CEN	C/N			alent	State	٤	tate	Bar
1:7			%	*		6СТА		- %	g/.cc.	_g/cc.	<u>. 4</u>	<u>, , , , , , , , , , , , , , , , , , , </u>
5.0			1.68	0.123	14	3.8			}			15.0
4.7			0.48	0.051		3.4	·	•	1.42	1.52	6	16.8
4.8			0.30	0.039		3.4			1.39	1.54	11	18.8
4.6			0.17	0.024		3.4				-		21.1
4.4			0.09	0.027		3.5			1.37	1.70	20	21.5
4.1			0.08	,		1.9			1.47	1.82	25	37.8
						·						
5Ala	6N2b	602b	7ABLE (CATIONS 6P2a	5 <u>Bla</u> 602a	BASE SAT.	503 Bese	5Bla Sum	5A3a. Sum	Ca/Mg	***************************************	estrios, destresas
CATION CHANGE	OWSD	0020	OHLA	OFZa	OWER	NE4Ac	Sat. %		ation			•
ANACITY	Co	Mg	H	No	K	EXCH.	on Stan	DODGO	CT OT CITE			
VH ₁₄ Ac		nille zuiv	alents per	: 100a. soil	i		Cations	∠me/1		803		Į.
										i		·
L.4	10.2	4.4	11.7	0.2	0.4	71	56	15.2		2.3		1
ול כ	4.6	4.1	19.3	0.2	0.4	40	32	9.3	28.6	1.1		1
		1. 0	22.2	0.3	0.4	36	29	9.0	31.2	1.0		ţ
	4.1	4.2					. ~~		いつし だ		1	ļ
.1	4.1 5.5	5.8	22.3	0.5	0.5	41	36	12.3	34.6	0.9		1
.1 .7			22.3 20.1	0.5	0.5	5 6	47	17.8	37.9	1.0		
1 7 7	5.5	5.8					30 47 68		, –			
5.1 9.7 L.7	5.5 8.5	5.8 8.2	20.1	0.6	0.5	5 6	47	17.8	37.9	1.0		
	5.5 8.5 20.6	5.8 8.2 18.8	20.1 19.9	0.6 1.4 brown	0.5 1.3	56 84 ack cond	47 68 r. (Fe-	17.8 42.1	37.9 62.0	1.0		Andrew Professions and American Springers and American Springers and American Springers and American Springers
a. b.	5.5 8.5 20.6 Many	5.8 8.2 18.8 smooth	20.1 19.9 11ght	0.6 1.4 brown	to blue to	56 84 ack conc black co	47 68	17.8 42.1 Mn) s-Mn)	37.9 62.0	1.0		

Soil Type: Wilcox silt loam

Soil Nos.: 958Miss-52-2

Location: 264 feet west and 99 feet north of southeast corner of the SW 1/4 of the SE 1/4 of Sec. 12, Ti3N, R16E. In pasture east of local road two miles north of crossroads on black top three miles west of center of

Shuqualak. Photograph NI-1H-24. Area: Noxubee County, Mississippi.

Use: Pasture.

Relief: Gently sloping.

Brainage: Somewhat poorly drained.

Parent Material: Acid clays (Porters Creek clay).

Ground Water: Deep.

Moisture: Soil was moist when sampled.

Root Matribution: Good. Collected by: J. S. Allen, K. W. Flach, and Y. H. Havens, May 20, 1958. Described by: Y. H. Havens.

Horizon and Lincoln Lab. No.

O to 4 inches. Dark grayish brown (10YR 4/2) silt loam with few fine and faint mottles and material Ap 8222 from layer below; moderate fine granular and weak fine subangular blocky structure; friable when moist, slightly plastic when wet; many fine roots, root channels and wormholes; abrupt smooth boundary.

4 to 11 inches. Dark yellowish brown (10YR 4/4) silty clay loam or silty clay with common fine distinct gray (10YR 6/1) and light brownish gray (2.5Y 6/2) mottles; moderate fine and medium subangular blocky structure; friable when moist, plastic and slightly sticky when wet; many fine roots, root channels Elt 8223 and wormholes; clear smooth boundary.

11 to 16 inches. Mottled yellowish red (5YR 4/8) gray (10YR 6/1) and yellowish brown (10YR 5/6) light silty clay; strong fine and medium subangular and angular blocky structure; friable to firm when moist; plastic and sticky when wet; common fine roots; gradual smooth boundary. TOO! 8224

16 to 36 inches. Gray (10YR 6/1) clay with common fine prominent red (10R 4/8) and brownish yellow (10YR 6/8) mottles; moderate medium prismatic structure that breaks into moderate to strong fine and medium B23tg 8225 angular and subangular blocky structure; firm when moist, plastic and sticky when wet; small weak slickensides; few fine roots; gradual wavy boundary.

36 to 56 inches. Gray (10YR 6/1) clay with many medium prominent red (10R 4/8) and yellowish brown (10YR 5/8) mottles; strong fine to coarse angular blocky structure; firm when moist, plastic and sticky when wet; large slickensides (8 by 10 inches) just above shale layer; few fine roots; pockets of yellowish brown (10YR 5/6) clay which are discontinuous; abrupt irregular boundary. B3g 8226

56 to 72 inches plus. Olive (5Y 5/3) shale. R 8227

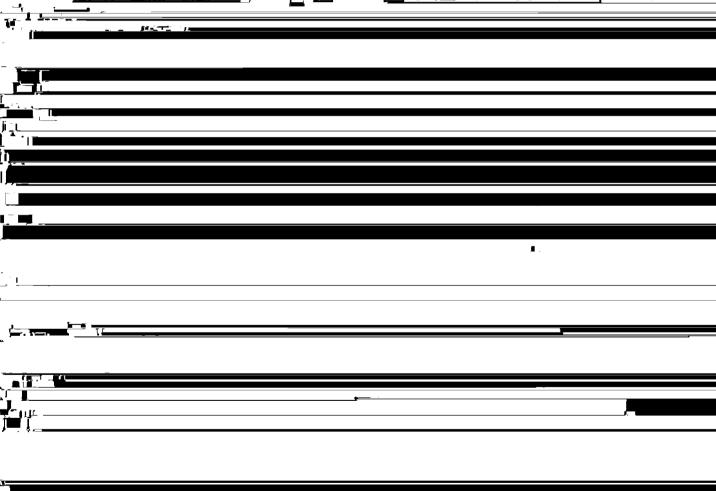
Remarks: The B21t, B23tg, and R horizons were sampled for the Bureau of Public Roads.

OIL SURVEY LABORATORY Lincoln, Nebr. December 1958

OIL TYPE Wilcox LOCATION Noxubee County, Mississippi silt loam

SOIL NOS. \$58Mas-52-3 LAB. NOS. 8228-8234

***************************************	1814 PARTICLE SIZE DISTRIBUTION (in ma.) (per com) 3A1												
DEPTH		VERY				VERY FINE					2A2	TEXTURAL	
DEPTH	HCRIZON	COARSE	COARSE	MEDIUM SAND	FINE	SAND	SILT	CLAY			> 2	CLASS	
	•	2.1	1-0.5	0.5-C.25	0.25-0.10	0.10-0.05	0.05-0.002	< 0.002	0.2-0.02	0.02-0.002		<u> </u>	
0-5	Ano	2.10	2.4a	1.50	2.1b	0.9ъ	52.0	39.0	17.4	36.4	Tr.	sicl	
5-8	B21t	1,0e	2.0a	1.2b	1.26	1.4b	49.6	43.6	15.2	36.2	-	sic	
8-15	B22t	· l.le	1.7a	1.0b	0.86	1.50	46.2	47.7	14.5	33.3		sic [
15-33	B23tg	1.3e	2.1a	1.2b	0.9ь	1.46	45.9	47.2	14.6	32.8	-	sic	



Soil Type: Wilcox silt loam

Soil Nos.: 858Miss-52-3 Incention: 425 feet east and 35 feet south of northwest corner of the NW 1/4 of the NE 1/4 of Sec. 15, Tl3N, Rife. In idle field south of gravel road 5 miles west of Shuqualak. Photograph NI-9H-56. Area: Noxubee County, Mississippi. Tale (Broomsege). Hee:

Relief: Gently sloping.

Brainage: Somewhat poorly drained.

Ground Water: Deep.

Moisture: Soil was moist when sampled. Root Distribution: Good. Collected by: J. S. Allen, K. W. Flach, and Y. H. Havens, May 20, 1958. Described by: Y. H. Havens.

Horrizon and Idneoln Tab. No.

0 to 5 inches. Dark brown (10YR 4/3) silt losm or silty clay losm with few fine faint pale brown (10YR 6/3) mottles; moderate fine granular and weak fine subangular blocky structures; friable when moist, slightly Ap 8228 plastic when wet; many fine roots, root and worm channels; abrupt smooth boundary.

5 to 8 inches. Mottled dark brown $(7.5 \mathrm{YR}\ 4/4)$ pale brown $(10 \mathrm{YR}\ 6/3)$ gray $(10 \mathrm{YR}\ 6/1)$ and yellowish red $(5 \mathrm{YR}\ 4/8)$ silty clay loam or silty clay; moderate fine and medium subangular blocky structure; friable when moist, plastic, slightly sticky when wet; many fine roots, root and worm channels; clear smooth B21t 8229 boundary.

B22t 8 to 15 inches. Mottled yellowish red (5YR 4/8) light brownish gray (10YR 6/2) and grayish brown (2.5Y 8230 5/2) silty clay; strong fine and medium subangular and angular blocky structure; firm when moist, plastic and sticky when wet; few small iron concretions; many fine roots; clear wavy boundary.

15 to 33 inches. Hight brownish gray (2.5Y 6/2) silty clay or clay with many medium prominent red (10R 4/8) and light olive brown (2.5Y 5/6) mottles; strong fine and medium angular and subangular blocky B23tg 8231 structure; firm when moist, plastic and sticky when wet; root and worm channels filled with gray (10YR 6/1) clay; occasional small gravel; gradual wavy boundary.

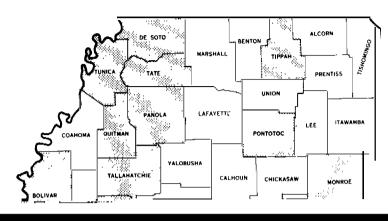
33 to 50 inches. Mottled gray (5Y 5/1) yellowish brown (10YR 5/8) and yellowish red (5YR 4/8) clay; strong coarse angular blocky and strong fine and medium angular and subangular blocky structure; friable when moist, very plastic and sticky when wet; many slickensides (3 inches large); abrupt wavy boundary. B3g 8232

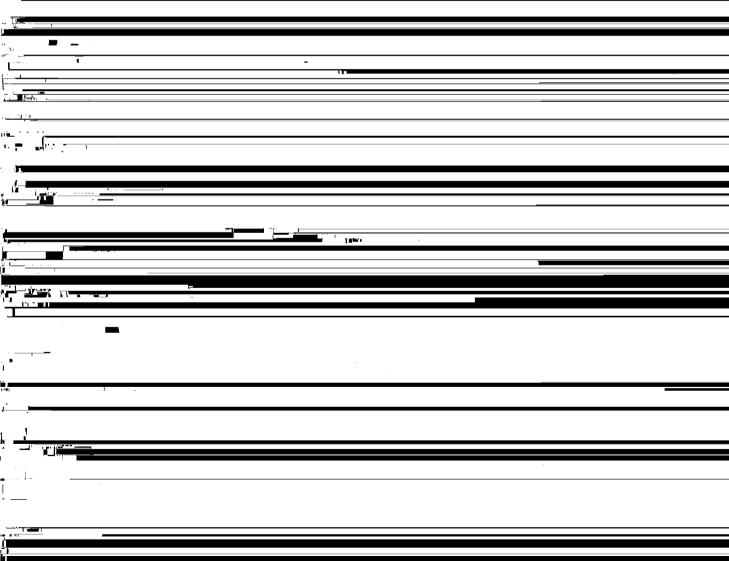
50 to 57 inches. Mottled gray (5Y 5/1) to yellowish brown (10YR 5/6) and red (10R 4/8) clay; mottles Cg 8233 are many coarse and prominent; massive structure and strong coarse angular blocky; large slickensides; friable when moist, very plastic and sticky when wet; numerous fine roots; abrupt wavy boundary.

57 to 53 inches. Gray (10YR 5/1) shale; few large roots in shale. 8234

Remarks: The Ap, R23g, and R horizons were sampled for the Bureau of Public Roads. Numerous roots through entire profile.

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